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EXECUTIVE SUMMARY

Oracle Integration provides native connectivity to Oracle and non-Oracle Software as a Service (SaaS) and On-premises applications, such as Oracle ERP Cloud, Oracle Service Cloud, HCM Cloud, Salesforce.com, Workday, EBS, SAP, NetSuite and so on. Oracle Integration adapters simplify connectivity by handling the underlying complexities of connecting to applications using industry-wide best practices. You only need to create a connection that provides minimal connectivity information for each system.

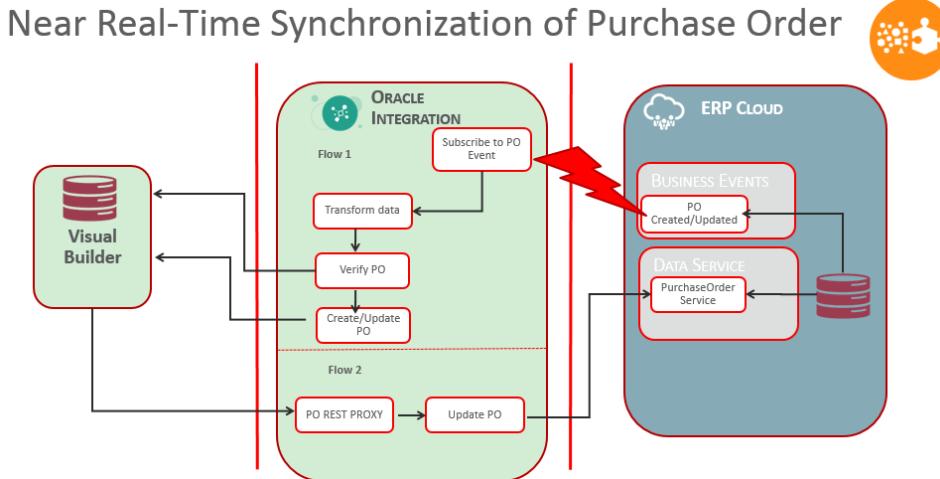
USECASE BACKGROUND

This use case explores the use of Oracle Integration to subscribe to Oracle ERP Cloud Events and push the relevant event information to downstream systems. As part of the lab you would be building the below use case scenario.

- a. User creates a Purchase Order(PO) in ERP Cloud and a PO event is raised (Flow1)
- b. Oracle Integration subscribes to the PO event, transforms and pushes the relevant information to a custom table (VBCS) (Flow1)
- c. User attaches Letter of Credit (LOC) information to the PO record from the VBCS Web App. (Flow2)
- d. PO Record in ERP Cloud is updated with the LOC information in ERP cloud (Flow2)

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The following diagram illustrates the proposed interaction between the systems involved in this use case. There are 2 flows to complete this use case.



OBJECTIVE

This document walks you through the steps needed to replicate this use case in your environment

BUILDING THE ERP CLOUD PO EVENT USE CASE

This section works through the steps that are required to build the integration from scratch.

Prerequisites

You will need access to the following applications and artifacts:

- Oracle Integration (OIC)
- ERP Cloud R12+
- VBCS App to import (LetterOfCreditPortal.zip)

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Import VBCS Web Application

1. Login to Oracle Integration homepage and Click on Visual Builder
2. Select Import -> Application from file and Upload the "LetterOfCreditPortal.zip" from the Lab artifacts
Note: Since there are multiple attendees sharing a single environment, please use the <ClassID> <StudentID> information (will be provided to you by the instructor) as a suffix to your web application
E.g. If your <ClassID> is 96 and your <StudentID> is 06, then you will name your web application as LetterOfCreditPortal9606
3. Change the ApplicationId also to the same name (LetterOfCreditPortal9606) to avoid conflicts and Select Import

Import Application from File

LetterOfCreditPortal.zip

* Application Name
Best to keep the name short so it looks nice

* Application ID
This ID defines the context path (browser's URI) used for the application

Description

4. Confirm that your application is imported into VBCS. Open the Imported application and you would notice that a few pages and business objects relevant to the use case is pre created. We will use this web application in the later part of the lab.

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Select the imported Web Application and you will observe a few pages are pre created

5. Couple of Business Objects (PO and LOC) pre created

Endpoint Type	Endpoint URL	Status
Development	https://oicstraining1-oicpm.integration.ocp.oraclecloud.com/ic/builder/design/Le	This application is not staged
Staging	https://oicstraining1-oicpm.integration.ocp.oraclecloud.com/ic/builder/rt/LetterO	This application is not staged
Live	https://oicstraining1-oicpm.integration.ocp.oraclecloud.com/ic/builder/rt/LetterO	This application is not published

Click the PO Business Object, copy the Data endpoint as highlighted above, and save it for later use.

Creating Connections (Flow1)

The following Connections have been created and configured. You will be using these connections for creating Integration flows

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Connection Name	Connection Type
ERP Conn 96 06	ERP Adapter

Creating REST Connection

1. On the Oracle Integration home page, click Integrations
2. Select the Connections tab
3. Click on Create and search for REST Adapter by providing the search keyword "REST" and Select Create

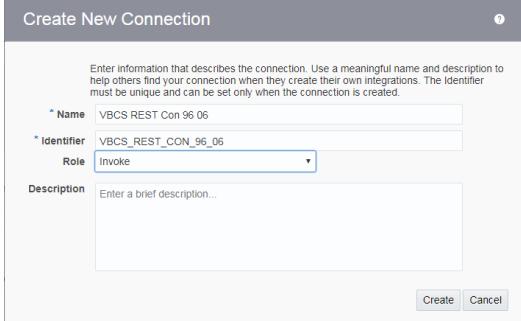
Deleted: Designer->



4. Provide following details and click on Create

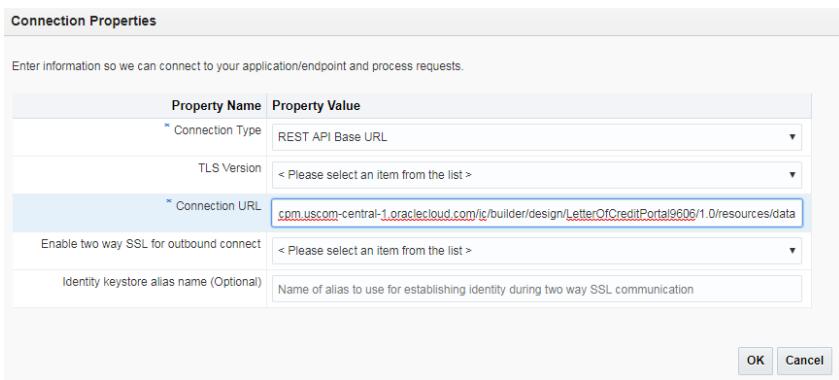
Field	Enter
Name	VBCS REST Con <ClassId><StudentId> Eg: VBCS REST Con 96 06
Identifier	Nothing to enter. The value is automatically generated from the integration name: VBCS_REST_CON_<ClassId>_<StudentId> Eg: VBCS_REST_CON_96_06
Role	Invoke

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5. Configure Connectivity and Security Property Values as per below table and Click "OK"

Field	Enter
Configure Connectivity	
Connection type	REST API Base URL
Connection URL	Use the Data endpoint url copied from "Import VBCS App" Section" -> Step 5 Provide the endpoint till "/data" Ex: <a href="https://<oichost>/ic/builder/design/LetterOfCreditPortal9606/1.0/resources/data">https://<oichost>/ic/builder/design/LetterOfCreditPortal9606/1.0/resources/data
Configure Security	
Security Policy	Basic Authentication
Username	Use the same credentials as used for login into Oracle Integration console
Password	Use the same credentials as used for login into Oracle Integration console



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Credentials

You can configure the Security Policy for this connection. Please select the Security Policy.

Security Policy Basic Authentication ▾

Your application/endpoint requires that users and services provide security credentials for access. Specify the login credentials below.

Property Name	Property Value
* Username	kishore.x.katta@oracle.com
* Password	*****
* Confirm Password	*****

OK Cancel

Save and Test the connection

Connection VBCS REST Con 96 06 was tested successfully.

VBCS REST Con 96 06

REST Connection 100% Last Saved: Just now

Creating the PO Event Integration (Flow1)

1. On the Oracle Integration home page, click **Integrations**.
2. On the Integrations page, click **Create**. The Create Integration - Select a Style/Pattern dialog is displayed.
3. Select **App Driven Orchestration** type of integration. The **Create New Integration** dialog is displayed.
4. Enter the following information:

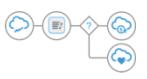
Field Element	Value
What do you want to call your integration?	ERP PO Event VBCS <ClassId><StudentId> Ex: ERP PO Event VBCS 96 06
Identifier	Accept the default identifier value. The identifier is the same as the integration name you provided, but in upper case.
Version	Accept the default version number of 01.00.0000. Alternatively, if you want to change the version number, enter the version using numbers only in this format: xx.xx.xxxx.
What does this integration do?	This integration demonstrates the use of Oracle Integration ERP Cloud Adapter Eventing capability along with the REST adapter to store the PO record in VBCS PO Table
Which package does this integration belong to?	Leave blank

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Create Integration - Select a Style

How would you like to build your integration? Select a style to use.

App Driven Orchestration  <p>Multi-step Integration flow triggered by an Application or API.</p> <p>Select</p>	Scheduled Orchestration  <p>Multi-step Integration flow triggered by a Schedule. Commonly used for Batch/Bulk Integrations or File processing.</p> <p>Select</p>	File Transfer  <p>Seamlessly and securely move files across the network.</p> <p>Select</p>
Basic Routing  <p>Basic App to App Routing with Data Mapping.</p> <p>Select</p>	Publish To OIC  <p>Publish messages from Apps to OIC Pub/Sub Channel.</p> <p>Select</p>	Subscribe To OIC  <p>Subscribe to messages from OIC Pub/Sub Channel.</p> <p>Select</p>

Cancel

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Create New Integration



Create New Integration

Enter information that describes this integration.

Describe this integration Use a meaningful name and description that will help others find and understand this integration. The Identifier and Version can be set only when the integration is created. The combination of Identifier and Version must be unique.

* What do you want to call your integration? ERP PO Event VBCS 96 06	What does this integration do? This integration demonstrates the use of Oracle Integration ERP Cloud Adapter Eventing capability along with the REST adapter to store the PO record in VBCS PO Table
* Identifier ERP_PO_EVENT_VBCS_96_06	Which package does this integration belong to? Enter a new or existing package name
* Version 01.00.0000	

Create **Cancel**

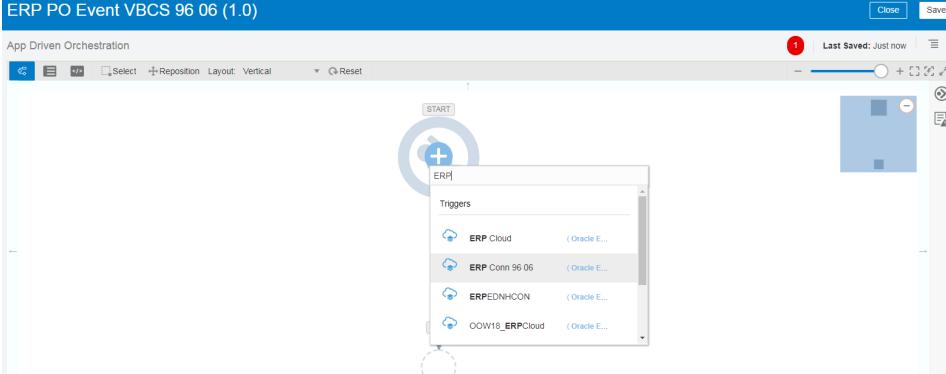
5. Click **Create**. The integration canvas is displayed.

ERP PO Event VBCS 96 06 (1.0)

App Driven Orchestration

START → END

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6. Hover over the circle next to Start, and click on the + sign
7. Select the ERP Connection (ERP conn 96 06) from the list which is pre created for you
8. Enter details as in the screenshot below to define the endpoint in the flow

Configure Oracle ERP Cloud Endpoint

Welcome to the Oracle ERP Cloud Endpoint Configuration Wizard. This wizard helps you configure an endpoint using the Oracle ERP Cloud connection. You will be asked to specify configuration parameters and define an operation for the service.

Basic Info

Request: POEVENT

What does this endpoint do? This will subscribe to the PO Events

9. In the next screen, select “Receive Business Events raised within ERP Cloud” as the option and search for the “Purchase Order Event” and provide an XPath Expression as below and Click Next

Deleted: With Business Events

```
<xpathExpr xmlns:ns0="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2/" xmlns:ns2="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2/types/">$eventPayload/ns2:result/ns0:Value/ns0:PurchaseOrderLine/ns0:itemDescription="Lan Cable"</xpathExpr>
```

Note: Change the highlighted value to some Item Description of your choice to filter the PO Record that you would be creating in ERP Cloud later. This is important as to filter your PO because multiple Users would be creating PO Event flows.

Deleted: be

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Configure Oracle ERP Cloud Endpoint

Configure the Integration Service Endpoint to Receive Requests from the Oracle ERP Cloud Application

Select the business object or event that you want to receive from the Oracle ERP Cloud application as a request document to start this integration flow.

Basic Info

Request (Selected)

Response

Summary

Configure a Request With Business Objects With Business Events Receive Status of ERP Import Job

* Business Event For Subscription Filter Expr for Purchase Order Event

Purchase Order Event

```
<xpathExpr
xmlns:ns0="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2/"
xmlns:ns2="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2/types/">$eventPayload/ns2:result/ns0:value/ns0:PurchaseOrderLine/ns0:itemDescription=Ln Cable</xpathExpr>
```

Event Description

The public business event is published when a purchase order is created, changed, finally closed, or reopened.

10. Select the Response type as “None” and Click Next

Configure Oracle ERP Cloud Endpoint

Configure the Response Type to Send to the Oracle ERP Cloud Application

Select the business object to send as a response document from the integration flow to the Oracle ERP application. The immediate response option provides a request and response message exchange. The delayed response option provides an asynchronous response message exchange.

Basic Info

Request

Response (Selected)

Summary

Response Type Delayed None

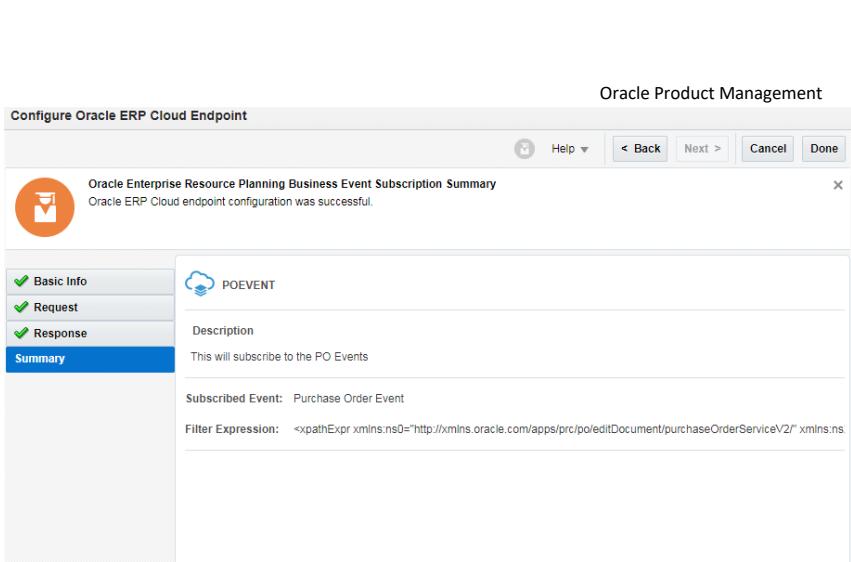
Select the operation and business objects to configure for a successful callback response. You can also optionally select to configure a callback response for a failed integration flow.

You have selected to send no response document back to the source application. No further configuration is required.

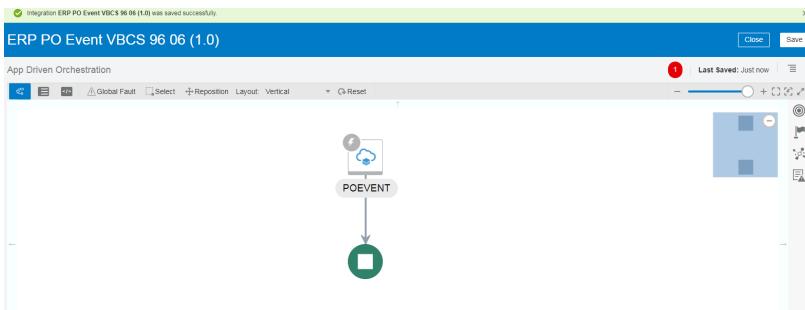
Select Next to go to the Summary page.

11. Review summary page and Click Done

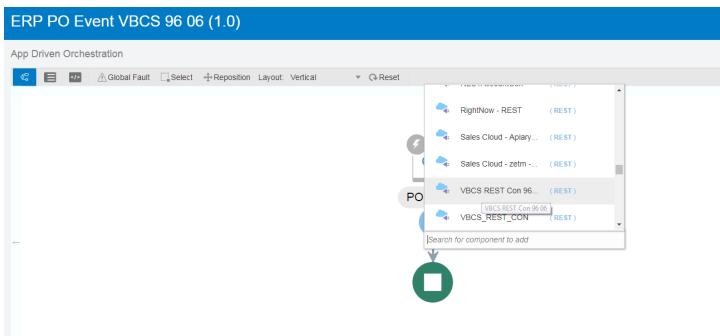
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12. Integration so far



13. Next we will add the Invoke **Action** Using the REST connection created earlier to verify if the PO exists in VBCS PO table.
Hover on the wiring next to the "POEVENT" and click on "+" sign and Select the REST Connection
(VBCS_REST_CON_<ClassId>_<StudentId>)



Integrating Your ERP with Oracle Integration

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14. In the "Basic Info" page provide the details as per the screenshot below and Click Next

Configure REST Endpoint

Welcome to the REST Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the REST adapter.

Basic Info

* What do you want to call your endpoint?
GETPO

What does this endpoint do?
Gets PO information from VBCS if exists

* What is the endpoint's relative resource URI?
/PO

* What action do you want to perform on the endpoint?
GET

Based on your selections, you can add parameters or configure a request and/or response for this endpoint.

Select any options that you want to configure:

Add and review parameters for this endpoint

Configure a request payload for this endpoint

Configure this endpoint to receive the response

Configure Request Headers? Standard Custom

15. In the Request Parameters page Add a query parameter as per below and Click Next. We wanted to search for a PO which can be invoked using below query parameter format

Ex:

https://<oid_host>/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO?q=pOHeaderId=300000074157561

Configure REST Endpoint

Configure the Request Query Parameters
Configure the request query parameters for this endpoint.

Request Parameters

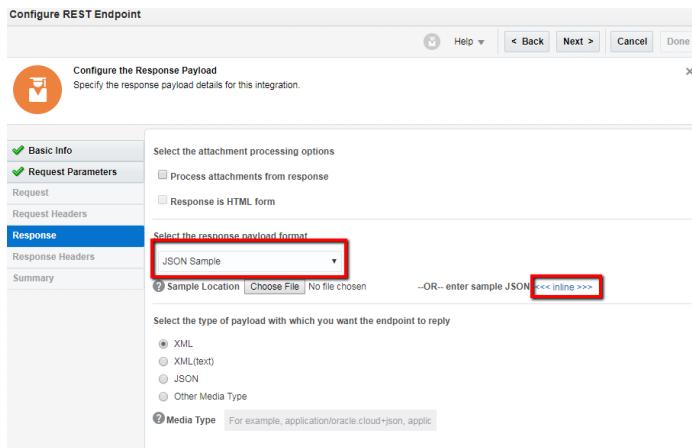
Name	Data Type
q	string

Template Parameters
Displays the template parameters in the relative resource URL. Template parameters are determined by details you specified.

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16. In the Response page Select the Response payload format as JSON



Select "inline" and enter the below JSON sample in the text area and Click OK. Select Next

```
{
  "items": [
    {
      "id": 24,
      "creationDate": "2019-01-13T23:12:09+00:00",
      "lastUpdateDate": "2019-01-13T23:12:09.027+00:00",
      "createdBy": "john.doe@example.com",
      "lastUpdatedBy": "john.doe@example.com",
      "pOHeaderId": "300000074157561",
      "orderNumber": "162180",
      "procurementBldId": "300000046987012",
      "procurementBusinessUnit": "US1 Business Unit",
      "supplierId": "300000047414679",
      "supplier": "Dell Inc.",
      "soldToLegalEntity": "US1 Legal Entity",
      "JOCId": null,
      "links": [
        {
          "rel": "self",
          "href": "https://oic_host/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO/24",
          "name": "PO",
          "kind": "item",
          "properties": {
            "changeIndicator": ""
          }
        },
        {
          "rel": "canonical",
          "href": "https://oic_host/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO/24"
        }
      ]
    }
  ]
}
```

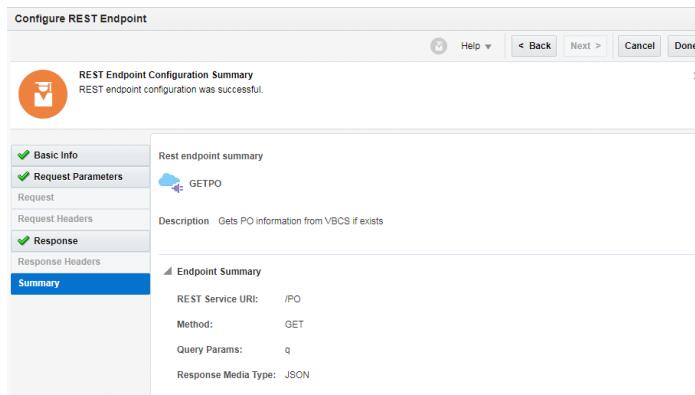
"ACED0005737200136A6176612E7574696C2E41727261794C6973747881D21D99C7619D03000149000473697A65787
000000001770400000001737200106A6176612E6C616E672E446F75626C6580B3C24A296FB0402000144000576616C
7565787200106A6176612E6C616E672E4E756D62657286AC951D0B94E08B02000078703FF0000000000000078"

```

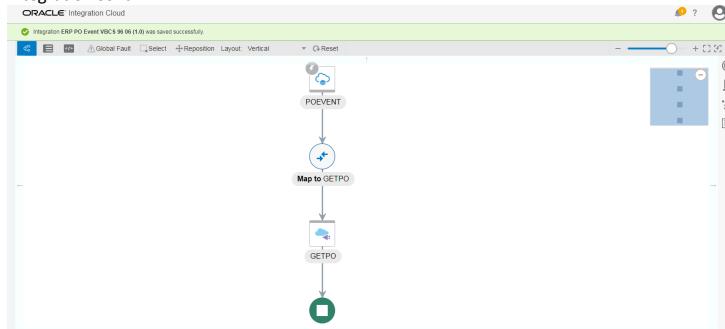
        "name": "PO",
        "kind": "item"
    }
]
},
"count": 1,
"hasMore": false,
"limit": 25,
"offset": 0,
"links": [
{
    "rel": "self",
    "href": "https://oci_host/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO",
    "name": "PO",
    "kind": "collection"
}
]
}

```

17. In the Summary page review the information and click Done

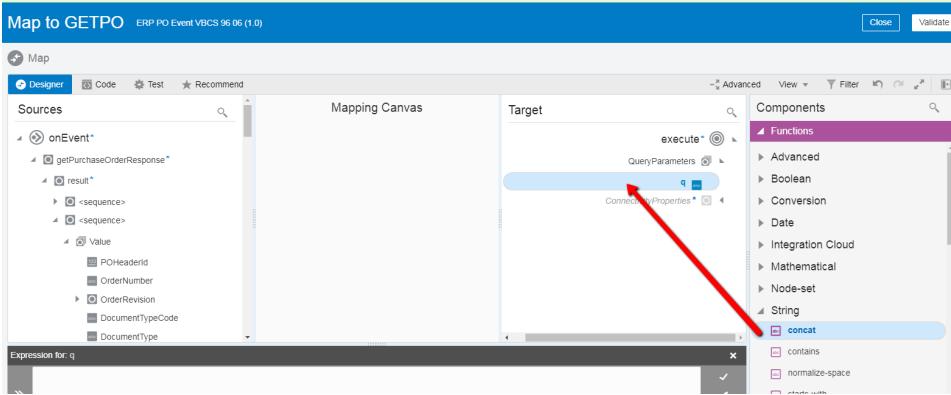


18. Integration so far...



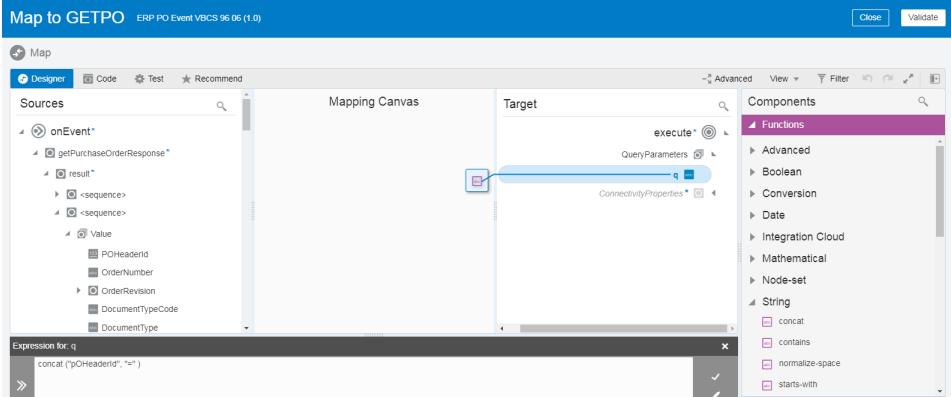
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- A Map **Action** (Map to GETPO) is created automatically. Perform the mapping as per below. Select the Map **Action** and Click on "Edit" to open the Mapper

Select the "q" Query Parameter from the Target, drag and drop the concat function to build query parameter value as "**pOHeaderId=30000074157561**".



Provide static value "**pOHeaderId**" as the first parameter value for the concat("","","")

Provide static value "=" as the second parameter value for the concat("","","")



Provide the third parameter value by dragging the "POHeaderId" element inside the concat("","","")

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Map to GETPO ERP PO Event VBCS 96 06 (1.0)

Designer Code Test Recommend

Sources

- onEvent*
 - getPurchaseOrderResponse*
 - result*
 - <sequence>
 - <sequence>
 - Value
 - POHeaderId
 - OrderNumber
 - OrderRevision
 - DocumentTypeCode

Mapping Canvas

Target

Components

- Functions
 - Advanced
 - Boolean
 - Conversion
 - Date
 - Integration Cloud
 - Mathematical
 - Node-set
 - String
 - concat
 - contains
 - normalize-space
 - starts-with

execute* (QueryParameters) q

ConnectivityProperties*

Expression for: q

```
concat("POHeaderId", ",")
```

Click on the Tick mark in the expression window to save your expression

Map to GETPO ERP PO Event VBCS 96 06 (1.0)

Designer Code Test Recommend

Sources

- onEvent*
 - getPurchaseOrderResponse*
 - result*
 - <sequence>
 - <sequence>
 - Value
 - POHeaderId
 - OrderNumber
 - OrderRevision
 - DocumentTypeCode
 - DocumentType

Mapping Canvas

Target

Components

- Functions
 - Advanced
 - Boolean
 - Conversion
 - Date
 - Integration Cloud
 - Mathematical
 - Node-set
 - String
 - concat
 - contains
 - normalize-space
 - starts-with

execute* (QueryParameters) q

ConnectivityProperties*

Expression for: q

```
concat("POHeaderId", ",")
```

Click on Validate to check for any errors.

Mapping is valid and ready to use.

Map to GETPO ERP PO Event VBCS 96 06 (1.0)

Designer Code Test Recommend

Sources

- onEvent*
 - getPurchaseOrderResponse*
 - result*
 - <sequence>
 - <sequence>
 - Value
 - POHeaderId

Mapping Canvas

Target

Components

- Functions
 - Advanced
 - Boolean
 - Conversion
 - Date
 - Integration Cloud
 - Mathematical

execute* (QueryParameters) q

ConnectivityProperties*

Save your integration

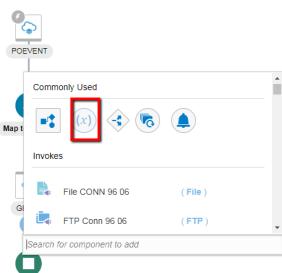
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20. Now, we will assign PO Record Count value to a variable "POHeaderId"

Hover on the wiring next to "GETPO" and click on "+" sign and Select Assign [Action](#)

Deleted: activity



Provide a name for the Assign Action and Click on Create

The screenshot shows the 'Create Action' dialog with the title 'Assign'. It has fields for 'Name' (set to 'PORecord') and 'Description' (with placeholder 'Enter description'). At the bottom are 'Create' and 'Cancel' buttons.

Click on "+" to add a new Variable. Add a variable "PORecordCount" of Data type string

The screenshot shows the 'Assign' dialog for the 'PORecord' integration. It displays a table with one row: PORecordCount (Variable), string (Data Type), Type a description (Description), Add an expression (Operation), and an empty Value field. A '+' button is located at the bottom right.

Click the pencil icon to "Add an expression" to assign record count value. In the expression builder drag and drop the count element that we got as a response from the GETPO API call from the earlier step.

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PORecordCount

Expression in "PORecord - ERP PO Event VBCS 96 06 (1.0)"

Inputs

View ▾ Filter Detach

Source Find...

- ↳ <> "onEvent"
- ↳ <> "getPurchaseOrderResponse"
 - ↳ <> "result"
- ↳ \$GETPO
 - ↳ <> "executeResponse"
 - ↳ <> "response-wrapper"
 - ↳ <> "items"
 - ↳ <> "count"

View ▾ Details

Components Find...

↳ Functions

↳ Operators

Expression

```
$GETPO!$src!mpr.executeResponse!$src!response-wrapper!$src!count
```

Expression Summary

Validate and Close the Expression Builder...Save your integration

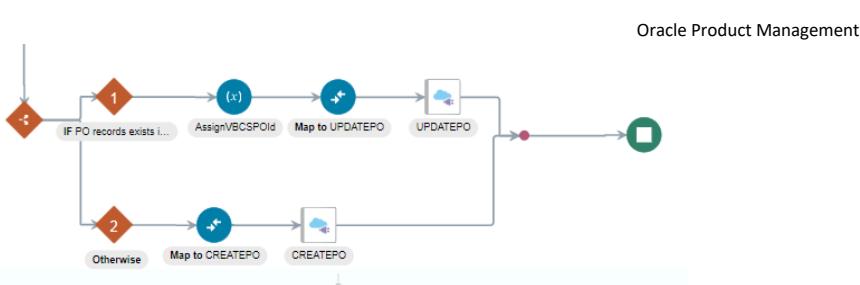
Integration so far...



21. Next we will try to build an if-else logic as per below pseudo code

Search for PO record based on POHeaderID (Implemented already in previous steps)
 If (count of PORecords in VBCS) = 1
 - Update existing VBCS PO Record
 Else
 - Insert a new PO Record

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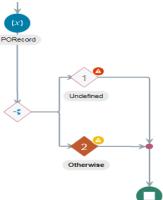


Hover on the wiring next to the PORecord Activity and Select the “Switch” [Action](#)

Deleted: Activity



Below construct is created



If – Flow (Condition 1)

Select Condition “1” and click on Edit icon which brings up an Expression builder and provide the condition as per below

PO records exists in VBCS

Expression Name: PO records exists in VBCS

New Condition: \$PORecordCount = 1

Inputs:

- Source: \$PORecordCount
- Component: Functions

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22. Hover on the wiring next to the If Condition (1) Action and Click on “+” Sign and select the “Assign” Action

Provide a name for the Assign Action as “AssignVBCSPOId”

Create a Variable “VBCSPOId” of String data type and add an expression as below. Validate and Close the expression builder.

VBCSPOId

Expression in "AssignVBCSPOId - ERP PO Event VBCS 96 06 (1.0)"

Inputs

View Filter Detach

Source

onEvent
↳ getPurchaseOrderResponse
↳ result
↳ \$GETPO
↳ executeResponse
↳ response-wrapper
↳ items
↳ id

Expression

\$GETPOInssr:mpr.executeResponseInsr:rf.response-wrapper:msr:rf:items:msr:rf:id

AssignVBCSPOId - ERP PO Event VBCS 96 06 (1.0)

(x) Assign

Assign variables to your integration. You can assign values to variables using the editor. Variable assignments can be a greater of complexity. For example, you can use assignments in other activities and in maps.

Add at least one named variable and specify its value by adding an expression.

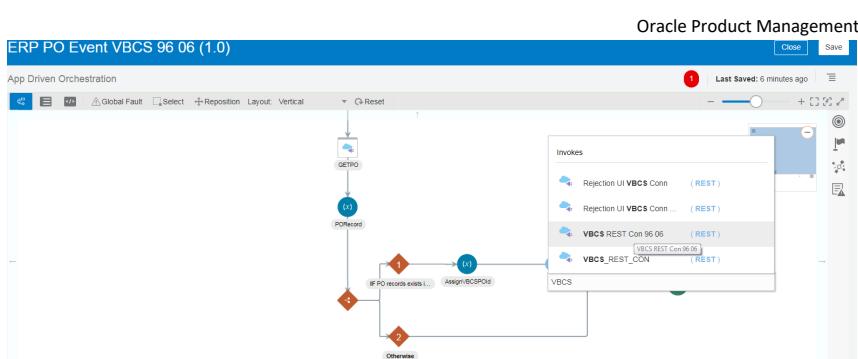
Variable	Data Type	Description	Operation	Value
(x) VBCSPOId	string	Type a description	id	

Validate and Close the Assign window. Save your integration.

23. Hover on the wiring next to the Assign Action and Click on “+” Sign and select the REST Connection created earlier ex: VBCS_REST_CON_<ClassId>_<StudentId>

Deleted: activity

Deleted: Activity



24. In the Basic Info Page provide the details as per below and Click Next

The screenshot shows the "Configure REST Endpoint" wizard, specifically the "Basic Info" page. The page has a header with "Help", "< Back", "Next >", "Cancel", and "Done" buttons. On the left is a sidebar with tabs: "Basic Info" (selected), "Request Parameters", "Request", "Request Headers", "Response", "Response Headers", and "Summary". The main content area contains the following fields:

- * What do you want to call your endpoint? (Value: UPDATEPO)
- What does this endpoint do? (Value: updates po with vbc cross reference id)
- * What is the endpoint's relative resource URI? (Value: /PO/{ID})
- * What action do you want to perform on the endpoint? (Value: PATCH)
- Based on your selections, you can add parameters or configure a request and/or response for this endpoint.
- Select any options that you want to configure:
 - Add and review parameters for this endpoint
 - Configure a request payload for this endpoint
 - Configure this endpoint to receive the response

25. Nothing to Specify in Review Parameters page. Click Next

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Configure REST Endpoint

Configure the Request Query Parameters
Configure the request query parameters for this endpoint.

Request Parameters	
Request	Resource URI /PO/{ID}
Request Headers	
Response	
Response Headers	
Summary	

Specify Query Parameters

Detach

Name	Data Type
No Configuration.	

Template Parameters

Displays the template parameters in the relative resource URI. Template parameters are determined by details you specified earlier.

Name	Type
ID	string

26. In the Request Page Select the request payload format as “JSON Sample”. Select the “inline” link and provide the below Sample JSON request and Click Next

Configure REST Endpoint

Configure the Request Payload
Configure the request payload details for this endpoint.

Request	
Request Headers	
Response	
Response Headers	
Summary	
Select the attachment processing options	<input type="checkbox"/> Send attachments in request <input type="checkbox"/> Request is HTML form
Select the request payload format	<input checked="" type="radio"/> JSON Sample <input type="radio"/> Sample Location <input type="button" value="Choose File"/> No file chosen --OR-- enter sample JSON <<< inline >>>
Element	request-wrapper
Select the type of payload with which you want the endpoint to send	<input type="radio"/> XML <input type="radio"/> XML(text) <input checked="" type="radio"/> JSON <input type="radio"/> URL-encoded <input type="radio"/> Other Media Type
Media Type	For example, application/oracle.cloud+json, applic

```
{
  "orderNumber": "163521",
  "procurementBUID": "300000046987012",
  "procurementBusinessUnit": "US1 Business Unit",
  "supplierId": "300000047414679",
  "supplier": "Dell.",
  "soldToLegalEntity": "US1 Legal Entity",
  "IOCID": 2
}
```

27. In the Response page Select the request payload format as “JSON Sample”. Select the “inline” link and provide the below Sample JSON Response and Click Next

Integrating Your ERP with Oracle Integration

Oracle Product Management

```
{
  "id": 24,
  "creationDate": "2019-01-13T23:12:09+00:00",
  "lastUpdateDate": "2019-01-22T16:46:08+00:00",
  "createdBy": "john.doe@example.com",
  "lastUpdatedBy": "john.doe@example.com",
  "pOHeaderId": "300000074157561",
  "orderNumber": "163521",
  "procurementBUID": "300000046987012",
  "procurementBusinessUnit": "US1 Business Unit",
  "supplierId": "300000047414679",
  "supplier": "Dell.",
  "soldToLegalEntity": "300000046973970",
  "IOCID": null,
  "links": [
    {
      "rel": "self",
      "href": "https://oic_host/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO/24",
      "name": "PO",
      "kind": "item",
      "properties": {
        "changeIndicator": "ACED0005737200136A6176612E7574696C2E41727261794C6973747881D21D99C7619D03000149000473697A65787
000000001770400000001737200106A6176612E6C616E672E446F75626C6580B3C24A296BFB0402000144000576616C
7565787200106A6176612E6C616E672E4E756D62657286AC951D0B94E08B020000787040000000000000000078"
      }
    },
    {
      "rel": "canonical",
      "href": "https://oic_host/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO/24",
      "name": "PO",
      "kind": "item"
    }
  ]
}
```

28. Review the Summary Page and Click on Done

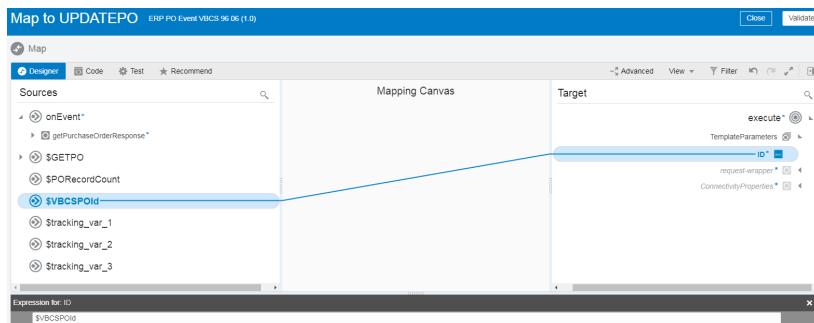
The screenshot shows the 'Configure REST Endpoint' screen. The title bar says 'Configure REST Endpoint'. Below it is a navigation bar with 'Help', 'Back', 'Next >', 'Cancel', and 'Done' buttons. On the left, there's a sidebar with checkboxes for 'Basic Info', 'Request Parameters', 'Request Headers', 'Response Headers', and 'Summary'. The 'Summary' checkbox is checked and highlighted in blue. The main content area has a header 'REST Endpoint Configuration Summary' with a note 'REST endpoint configuration was successful.' It shows a 'Rest endpoint summary' section with a 'UPDATEPO' icon. Below it is a 'Description' field containing 'update po with vbcx cross reference id'. Underneath is an 'Endpoint Summary' section with details: 'REST Service URI: /PO/{ID}', 'Method: PATCH', 'Request Media Type: JSON', and 'Response Media Type: JSON'.

Integrating Your ERP with Oracle Integration

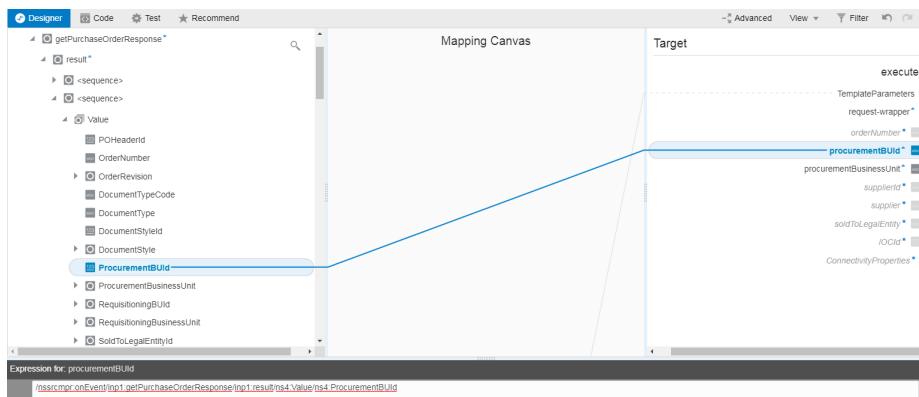
Oracle Product Management

29. A Map Action (Map to UPDATEPO) is created. Select the Map Action and Click on Edit Icon and provide mapping as per below screenshots

a. Map \$VBCSPOId TO TemplateParameters-> ID



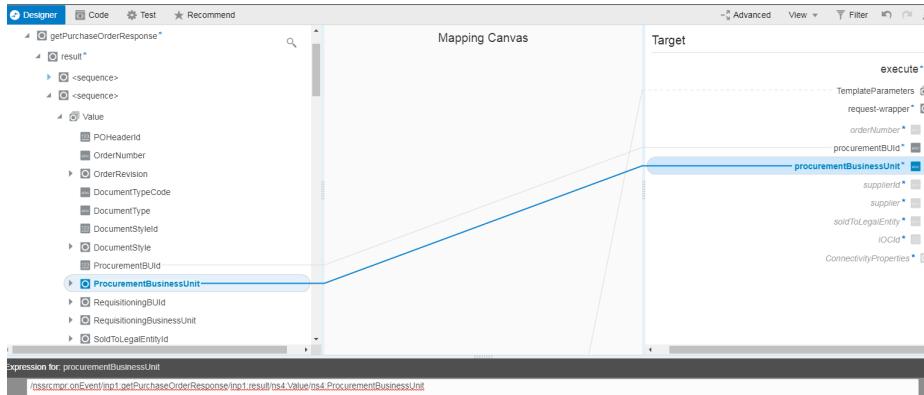
- b. Map onEvent -> getPurchaseOrderResponse->result-><sequence>->Value-> ProcurementBUID
TO request-wrapper -> procurementBUID



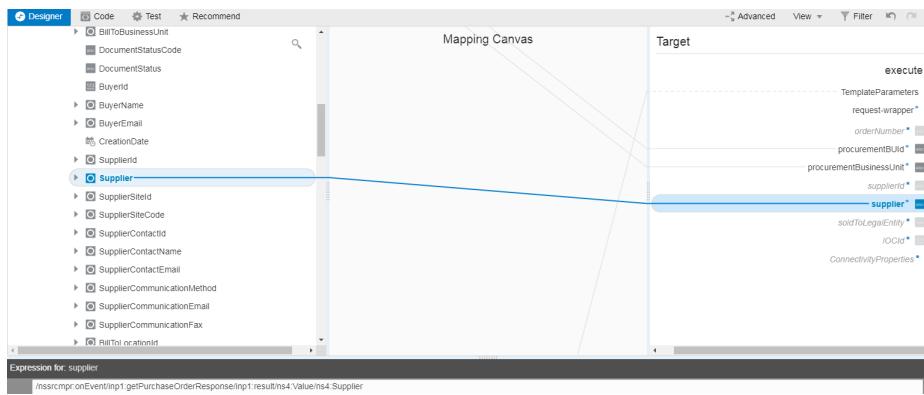
c.
d.

Oracle Product Management

- e. Map onEvent -> getPurchaseOrderResponse->result-><sequence>->Value-> ProcurementBusinessUnit
TO request-wrapper -> procurementBusinessUnit

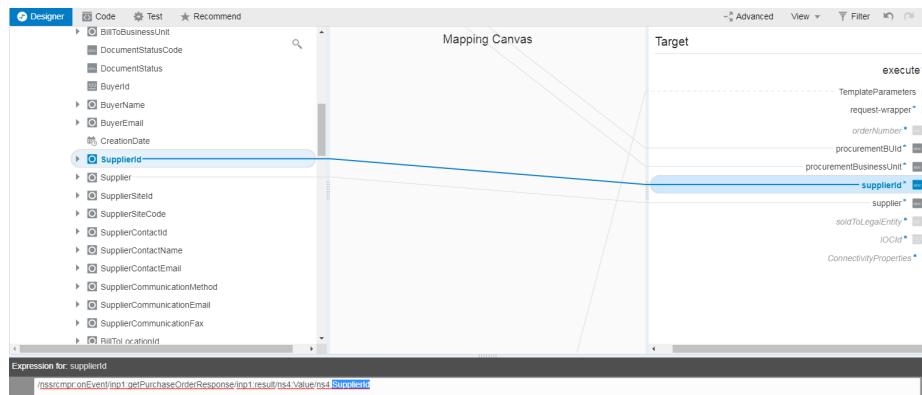


- f. Map onEvent -> getPurchaseOrderResponse->result-><sequence>->Value-> Supplier
TO request-wrapper -> supplier

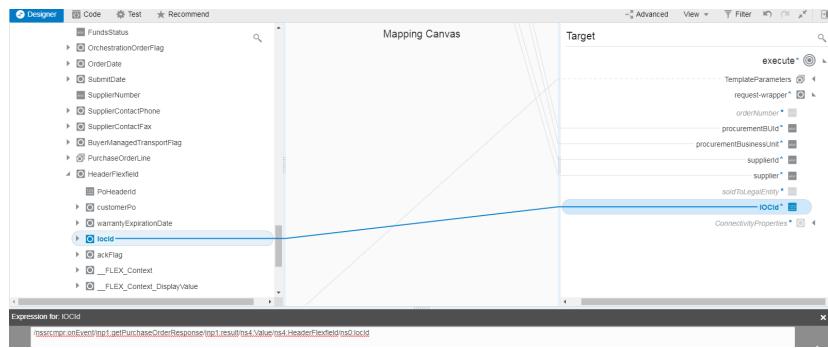


Oracle Product Management

- g. Map onEvent -> getPurchaseOrderResponse->result-><sequence>->Value-> SupplierId
TO request-wrapper -> supplierId



- h. Map onEvent -> getPurchaseOrderResponse->result-><sequence>->Value-> HeaderFlexfield->locId
TO request-wrapper -> IOClId

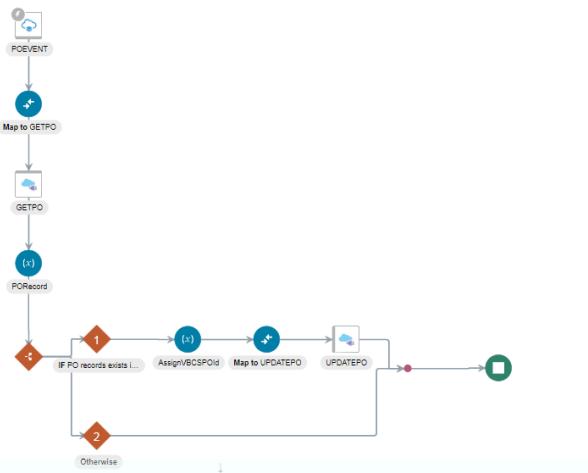


Click on Save and Validate. Close the mapper

30. Integration flow so far...

Integrating Your ERP with Oracle Integration

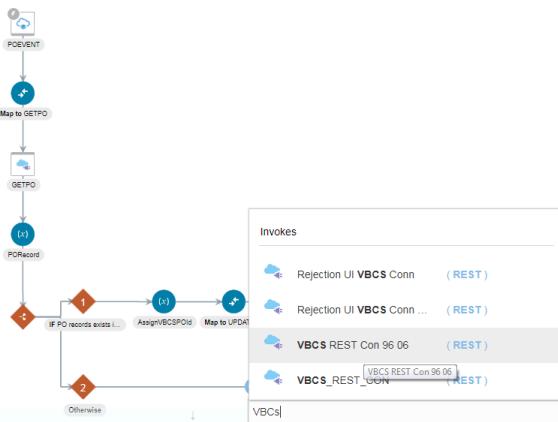
Oracle Product Management



31. Else – Flow

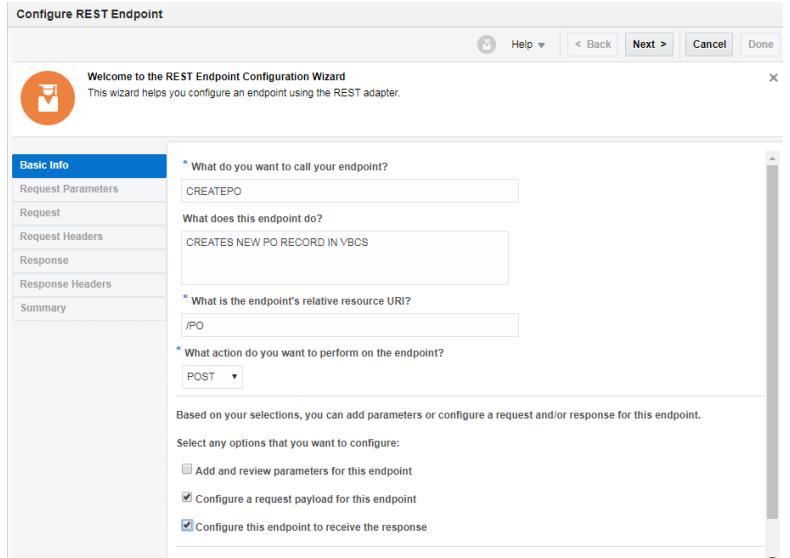
Hover on the wiring next to "Otherwise" [Action](#) and Select VBCS_REST_CON_<ClassId>_<StudentId> connection

Deleted: activity



32. In Basic Page configure the details as per below

Integrating Your ERP with Oracle Integration



33. In the Request Page Select the request payload format as "JSON Sample". Select the "inline" link and provide the below Sample JSON request and Click Next

```
{
  "pOHeaderId": "300000074157551",
  "orderNumber": "163521",
  "procurementBUID": "300000046987012",
  "procurementBusinessUnit": "US1 Business Unit",
  "supplierId": "300000047414679",
  "supplier": "Dell Inc.",
  "soldToLegalEntity": "US1 Legal Entity"
}
```

34. In the Response Page Select the response payload format as "JSON Sample". Select the "inline" link and provide the below Sample JSON response and Click Next

```
{
  "id": 41,
  "creationDate": "2019-01-22T17:32:24+00:00",
  "lastUpdateDate": "2019-01-22T17:32:24.027+00:00",
  "createdBy": "john.doe@example.com",
  "lastUpdatedBy": "john.doe@example.com",
  "pOHeaderId": "300000074157551",
  "orderNumber": "163521",
  "procurementBUID": "300000046987012",
  "procurementBusinessUnit": "US1 Business Unit",
  "supplierId": "300000047414679",
  "supplier": "Dell Inc.",
  "soldToLegalEntity": "300000046973970",
  "IOCID": null,
}
```

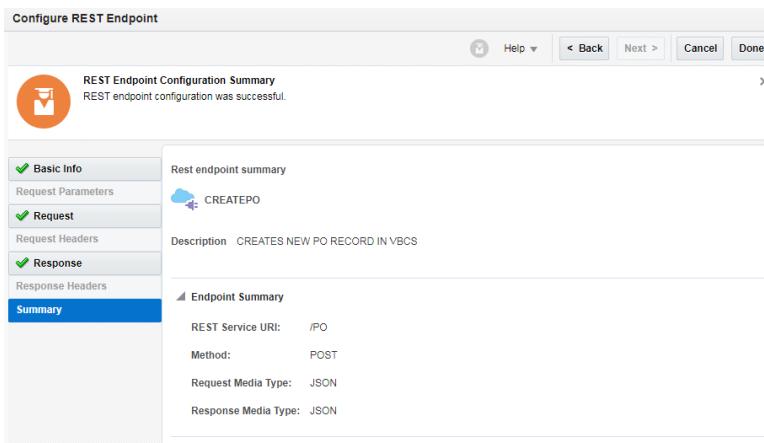
Oracle Product Management

```

"links": [
  {
    "rel": "self",
    "href": "https://oichost/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO/41",
    "name": "PO",
    "kind": "item",
    "properties": {
      "changeIndicator": "ACED0005737200136A6176612E7574696C2E41727261794C6973747881D21D99C7619D03000149000473697A657870000
00001770400000001737200106A6176612E6C616E672E446F75626C6580B3C24A296FB0402000144000576616C75657872
00106A6176612E6C616E672E4E756D62657286AC951D0B94E08B02000078703FF00000000000000078"
    }
  },
  {
    "rel": "canonical",
    "href": "https://oichost/ic/builder/design/LetterOfCreditPortal/1.0/resources/data/PO/41",
    "name": "PO",
    "kind": "item"
  }
]
}

```

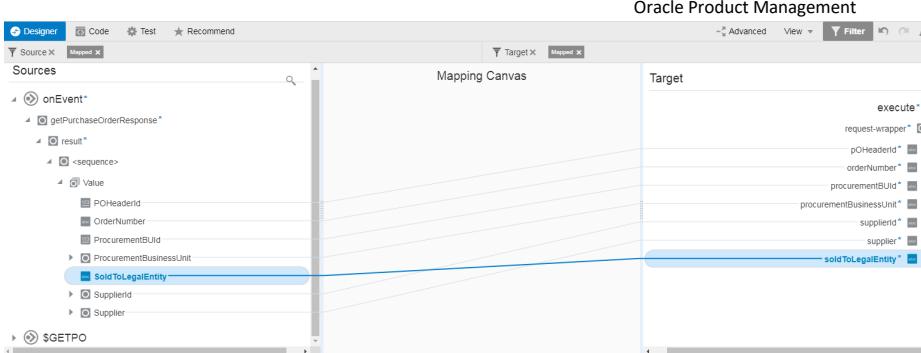
35. Review the Summary and Click Done



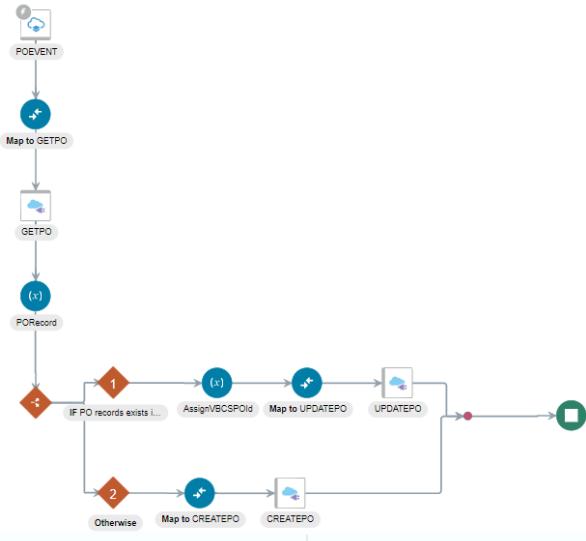
36. A Map Action is created. Provide the mapping for the Map Action (Map to CREATEPO) as per the screenshot below

Deleted: activity

Deleted: Activity



37. Final Flow 1 Integration



Save your integration flow.

38. While you are in the Integration flow page, Select the Hamburger icon on the TOP right corner and click on Tracking. Configure OrderNumber, POHeaderId and ItemDescription as tracking identifiers to identify your instance quickly when we a PO is created in ERP Cloud. Click Save on the Tracking page.

The screenshot shows the Oracle Product Management interface under the heading "Business Identifiers For Tracking". On the left, there is a tree view of source fields: "onEvent", "getPurchaseOrderResponse", "result", "Value", "POHeaderId", "OrderNumber", and "PurchaseOrderLine". On the right, a table lists tracking fields:

Primary	Tracking Field	Tracking Name	Tracking Variable	Help Text
<input checked="" type="checkbox"/>	OrderNumber	Order Number	tracking_var_1	How to track it?
<input checked="" type="checkbox"/>	POHeaderId	PO Header Id	tracking_var_2	How to track it?
<input checked="" type="checkbox"/>	ItemDescription	Item Description	tracking_var_3	How to track it?

Activate Integration (Flow1)

1. On the Integrations page, click on the “ERP PO EVENT VBCS <ClassId> <StudentId>” flow using the slider button

The screenshot shows the Oracle Integration Cloud Integrations page. It lists three flows:

- Invoice Bulk Import Callback Review 96 06 (1.0)**: APP DRIVEN ORCHESTRATION. A red box highlights the toggle switch for enabling the flow.
- ERP PO Event VBCS 96 06 (1.0)**: APP DRIVEN ORCHESTRATION. A red box highlights the toggle switch for enabling the flow.
- Invoice Bulk Import to ERP 96 06 (1.0)**: SCHEDULED ORCHESTRATION. A red box highlights the toggle switch for enabling the flow.

2. Check the *Oracle Recommends* check box to contribute your mappings to the Recommendations engine that then suggests mappings to you and other users for similar integrations. Also, check *Enable tracing* and *Enable payload* for debugging and troubleshooting (you would typically have the tracking and payload options disabled on production instances, but we enable them here for this lab).

Jan 25, 2019 12:37:04 PM UTC

Invoice Bulk Import Callback Review 96 06 (1.0)
APP DRIVEN ORCHESTRATION
This integration will be invoked as callback from ERP Cloud. This demonstrates the use of Oracle Integration ERP Cloud Adapter.

ERP PO Event VBCS 96 06 (1.0)
APP DRIVEN ORCHESTRATION
This integration demonstrates the use of Oracle Integration ERP Cloud Adapter.

Invoice Bulk Import to ERP 96 06 (1.0)
SCHEDULED ORCHESTRATION
This integration demonstrates the use of OIC's ERP Cloud Adapter.

ERP OTBI Extract File Sys 96 06 (1.0)
SCHEDULED ORCHESTRATION

ERP_PO_EVENT_VBCS_STORE (1.0)
APP DRIVEN ORCHESTRATION

PO_REST_PROXY (1.0)
APP DRIVEN ORCHESTRATION

Get Insight Dashboard (1.0)
APP DRIVEN ORCHESTRATION

Activate Integration

ERP PO Event VBCS 96 06 (1.0)

Oracle Recommends
 Contribute integration mappings to Oracle Recommends.

Trace with Payload
 Enable recording of integration instances. Recordings can be played later and maximum five recordings will be maintained for an integration.
 Enable Assembler Recording

Tracing
 Enable tracing
 Include payload

Learn More

Activate Cancel

- The activation should complete in a few seconds typically and show a green ribbon at the top.

Integration ERP PO Event VBCS 96 06 (1.0) submitted for activation. Click refresh if status is in progress
- Use this endpoint: https://OICMDS-APP-MC-ocpm.uscom-central-1.oraclecloud.com:443/cws/integration/v1flowserv/ERP_PO_EVENT_VBCS_96_06/1.0?wsdl to trigger this integration, after activation succeeds.
You can also go to Tracking page to track instances.

Integrations

Import Create

Jan 25, 2019 12:54:26 PM UTC

ERP PO Event VBCS 96 06 (1.0)
APP DRIVEN ORCHESTRATION
This integration demonstrates the use of Oracle Integration ERP Cloud Adapter Eventing capability along with the REST adapter to store the F

Search Last Updated

TRACE WITH PAYLOAD

Testing the ERP Event Flow Integration (Flow1)

- Login into ERP Cloud as casey.brown with the credentials provided
- Select Procurement tab and click on Purchase Orders

vision

Good evening, Sr. Jorge Monge!

Me My Team **Procurement** Product Management Payroll Risk Management Tools Financial Reporting Compliance >

APP

Purchase Requests Purchase Agreements Purchase Orders My Receipts Negotiations Catalog Suppliers

Integrating Your ERP with Oracle Integration

Oracle Product Management

3. Select Tasks tab and Click on Create Order

The screenshot shows the Oracle Product Management interface with the 'Tasks' tab selected. On the right side, there is a sidebar with various menu items under 'Orders'. The 'Create Order' button is highlighted with a red box.

4. Enter Supplier information (Dell Inc.) and leave the rest to default. Click on Create

The 'Create Order' dialog box is shown. The 'Supplier' field is populated with 'Dell Inc.' and is also highlighted with a red box. The 'Style' is set to 'Purchase Order'. Other fields like Procurement BU, Requisitioning BU, and Buyer are also filled with their respective values.

5. In the Purchase Order page go to the Order Lines Section and provide Item information as below

Integrating Your ERP with Oracle Integration

Oracle Product Management

Edit Document (Purchase Order): 163531

Document Site: Default

Social Manage Approvals View PDF Actions Save Submit Cancel

Order: 163531	Status: Incomplete	Communication Method: None	Total: 5.00 USD
* Buyer: Brown, Casey	Bill-to Location: Seattle	Default Ship-to Location: Seattle	Procurement Card: Description: Requisition: Agreement: S2167
Creation Date: 1/25/19			
Terms Notes and Attachments Required Acknowledgment: None Acknowledge Within Days: 14 Payment Terms: Net 30 Shipping Method: UPS Freight Terms: Buyer pays freight FOB: Origin <input type="checkbox"/> Requires signature <input type="checkbox"/> Buyer managed transportation <input checked="" type="checkbox"/> Pay on receipt <input type="checkbox"/> Confirming order			
Additional Information Customer PO: Letter of credit Id: Warranty Expiration Date: m01yy Supplier Acknowledgment Flag:			
Lines Schedules Distributions Actions: New Format: <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> <input type="button"/> Detach Wrap Line Type Description Category Name Quantity UOM Price On Location Requester 1 Goods an Cable Computer Supplies 1 EA \$0.00 Seattle			
Columns Hidden: 45			

Note: For "Description" enter a Unique Value of your choice, which was provided in the xpath expression earlier when configuring the ERP adapter PO Event

Ref:

Configure Oracle ERP Cloud Endpoint

Configure the Integration Service Endpoint to Receive Requests from the Oracle ERP Cloud Application

Select the business object or event that you want to receive from the Oracle ERP Cloud application as a request document to start this integration flow.

Basic Info Configure a Request With Business Objects With Business Events Receive Status of ERP Import Job

Request

* Business Event For Subscription: Purchase Order Event

Filter Expr for Purchase Order Event: `<xpathExpr xmlns:ns0="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2">`

```

<xpathExpr
  xmlns:ns0="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2"
  xmlns:ns2="http://xmlns.oracle.com/apps/prc/po/editDocument/purchaseOrderServiceV2/types/">$eventPayload/ns2:result/ns0:value/ns0:PurchaseOrderLine/ns0:itemDescription/ns0:an Cable</xpathExpr>

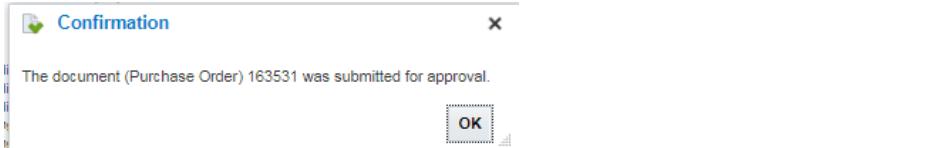
```

Event Description
 The public business event is published when a purchase order is created, changed, finally closed, or reopened.

Integrating Your ERP with Oracle Integration

Oracle Product Management

6. Click on Submit to Create a Purchase Order. Make a note of the Order Number



7. Click on Tasks tab and Select Manage Order

8. Search for the Order Number and wait for the Status field to change to "Open"

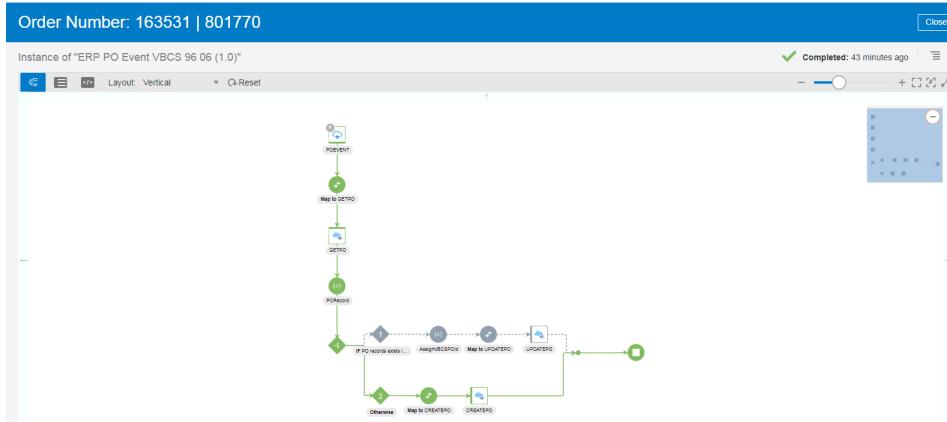
Order	Description	Supplier	Ordered	Currency	Status	Funds Status	Change Order	Life Cycle	Change Order	Creation Date	Supplier Site	Supplier Contact	Acknowledgment	Shipping Due Date	Shipping Method
163531	Dell Inc.	5.00 USD	Open							1/25/19	Dell US1	Noah Gill			UPS

9. Go back to Oracle Integration -> Monitoring -> Tracking Page and Search for your instance with the Order Number as Tracking identifier

Integrating Your ERP with Oracle Integration

Oracle Product Management

10. Click on the instance and verify that the Flow is completed successfully



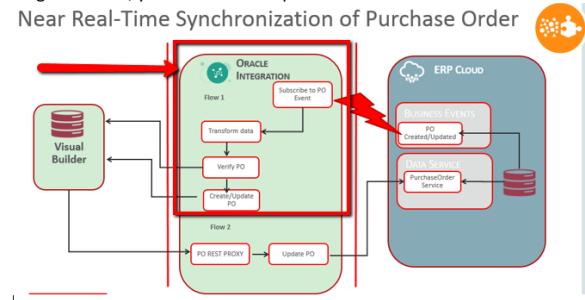
Since it is a new PO record which does not exist in VBCS “Otherwise” flow path is chosen based on the condition

11. Navigate to Visual Builder and Click on imported application
 12. Select the Business Objects Tab and click on “PO” object you should see a new record is created

Id (id)	LOCLd (OCld)	OrderNumber (orderNumber)	POHeaderId (pOHeaderId)	ProcurementBUILD (procurementBUILD)	ProcurementBusinessUnit (procurementBusinessUnit)
63		163531	300000176127931	30000046987012	US1 Business Unit

Congratulations, you have now completed Flow1 of the Usecase

Near Real-Time Synchronization of Purchase Order



Integrating Your ERP with Oracle Integration

Oracle Product Management

You leveraged rich capabilities of Oracle Integration such as ERP Adapter Event Subscription Capabilities using and App-driven (trigger-based) integration, ERP Cloud adapter, Rest adapter, Data Mapper, Actions such as Invoke and Activities such as Assign, Map, If-Otherwise etc, Configuring Business Tracking Identifiers and monitoring running flows.

You could now leverage this knowledge to design, activate and monitor several use cases for ERP Real time Synchronization

Creating Connections (Flow2)

The following Connections have been created and configured. You will be using these connections for creating Integration flow

Connection Name	Connection Type
PO REST Interface Con 96 06	Rest Adapter
ERP Conn 96 06	ERP Adapter

Creating the PO Proxy Integration (Flow2)

1. On the Oracle Integration home page, click **Integrations**.
2. On the Integrations page, click **Create**. The Create Integration - Select a Style/Pattern dialog is displayed.
3. Select **App Driven Orchestration** type of integration. The **Create New** Integration dialog is displayed.
4. Enter the following information:

Field Element	Value
What do you want to call your integration?	ERP PO Proxy <ClassId> <StudentId> Ex: ERP PO Proxy 96 06
Identifier	Accept the default identifier value. The identifier is the same as the integration name you provided, but in upper case.
Version	Accept the default version number of 01.00.0000. Or, if you want to change the version number, enter the version using numbers only in this format: xx.xx.xxxx.
What does this integration do?	This integration demonstrates the use of Oracle Integration REST adapter and ERP Cloud Adapter to create a REST to SOAP proxy for ERP Cloud webservices
Which package does this integration belong to?	Leave blank

Create Integration - Select a Style

How would you like to build your integration? Select a style to use.

App Driven Orchestration  Multi-step Integration flow triggered by an Application or API. <input type="button" value="Select"/>	Scheduled Orchestration  Multi-step Integration flow triggered by a Schedule. Commonly used for Batch/Bulk Integrations or File processing. <input type="button" value="Select"/>	File Transfer  Seamlessly and securely move files across the network. <input type="button" value="Select"/>
Basic Routing  Basic App to App Routing with Data Mapping. <input type="button" value="Select"/>	Publish To OIC  Publish messages from Apps to OIC Pub/Sub Channel. <input type="button" value="Select"/>	Subscribe To OIC  Subscribe to messages from OIC Pub/Sub Channel. <input type="button" value="Select"/>

Oracle Product Management

Create New Integration

Create New Integration

Enter information that describes this integration.

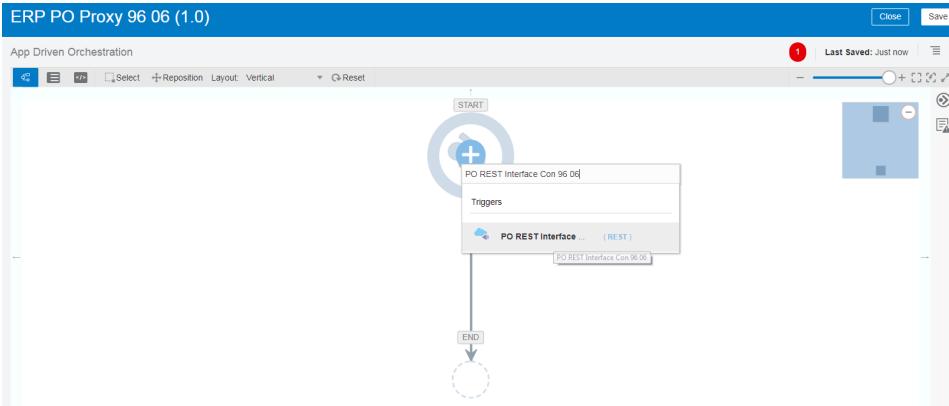
Describe this integration: Use a meaningful name and description that will help others find and understand this integration. The Identifier and Version can be set only when the integration is created. The combination of Identifier and Version must be unique.

* What do you want to call your integration?	This integration is a rest proxy for Purchase order service which will be invoked from VBACS page
* Identifier	ERP_PO_PROXY_96_06
* Version	01.00.0000
Which package does this integration belong to?	Enter a new or existing package name

Create **Cancel**

Click **Create**. The integration canvas is displayed

5. Hover over the circle next to Start, and click on the + sign
6. Select the REST Connection (PO REST Interface Con 96 06) from the list which is pre created for you
7. Enter details as in the screenshot below to define the endpoint in the flow



8. In the Basic info page provide the endpoint name and description. Click Next

Deleted: , uri, HTTP Verb and Select options for Request/Response payload...

Oracle Product Management

Configure REST Endpoint

Welcome to the REST Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the REST adapter.

Basic Info

- Resource Configuration
- Request Parameters
- Request
- Request Headers
- CORS Configuration
- Response
- Response Headers
- Operations
- Summary

* What do you want to call your endpoint?
POPProxy

What does this endpoint do?
REST interface for PO Service

Select to configure multiple resources or verbs. (maximum 11)

9. In the Resource Configuration page provide the operation name, URI, and HTTP verb, and select options for Request/Response payload.

Configure REST Endpoint

Welcome to the REST Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the REST adapter.

Basic Info

Resource Configuration

- Request Parameters
- Request
- Request Headers
- CORS Configuration
- Response
- Response Headers
- Operations
- Summary

* Provide an operation name
POPProxy

What does this operation do?
Describe what this operation does

* What is the endpoint's relative resource URI?
/PO_PROXY

* What action do you want to perform on the endpoint?
POST

Based on your selections, you can add parameters or configure a request and/or response for this endpoint.

Select any options that you want to configure:

Add and review parameters for this endpoint

Configure a request payload for this endpoint

Configure this endpoint to receive the response

Configure Request Headers? Standard Custom

Oracle Product Management

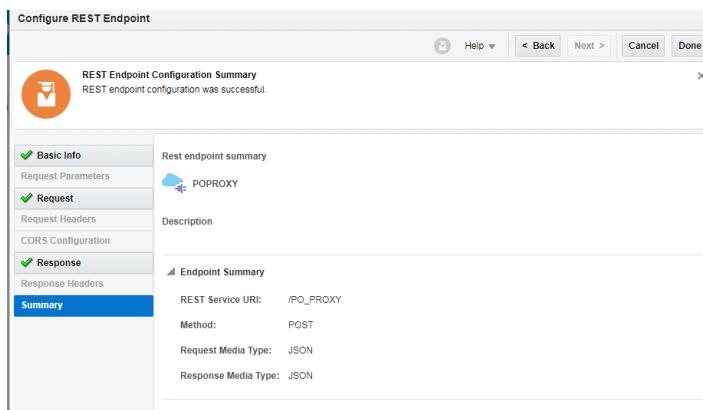
10. In the Request page Select Request payload format as "JSON Sample" and provide the sample JSON below by clicking on the inline link

```
{  
    "id": 24,  
    "IOClId": 3,  
    "orderNumber": "163521",  
    "pOHeaderId": "300000074157561",  
    "procurementBUId": "300000046987012",  
    "procurementBusinessUnit": "US1 Business Unit",  
    "soldToLegalEntity": "US1 Legal Entity",  
    "supplier": "Dell.",  
    "supplierId": "300000047414679"  
}
```

11. In the Response page Select Response payload format as "JSON Sample" and provide the sample JSON below by clicking on the inline link

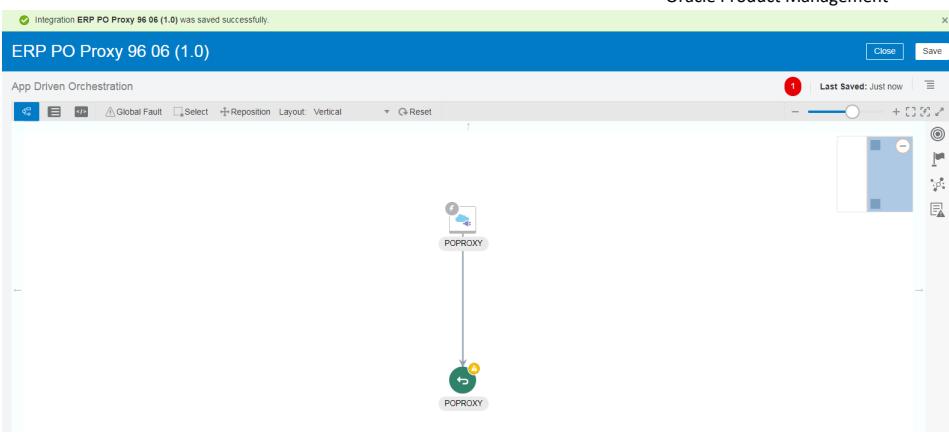
```
{  
    "pOHeaderId": "300000074157561",  
    "orderNumber": "162180",  
    "soldToLegalEntityId": "300000074157561",  
    "changeOrderNumber": 3,  
    "requestStatus": "SUCCESS"  
}
```

12. Review the Summary page and click on Done



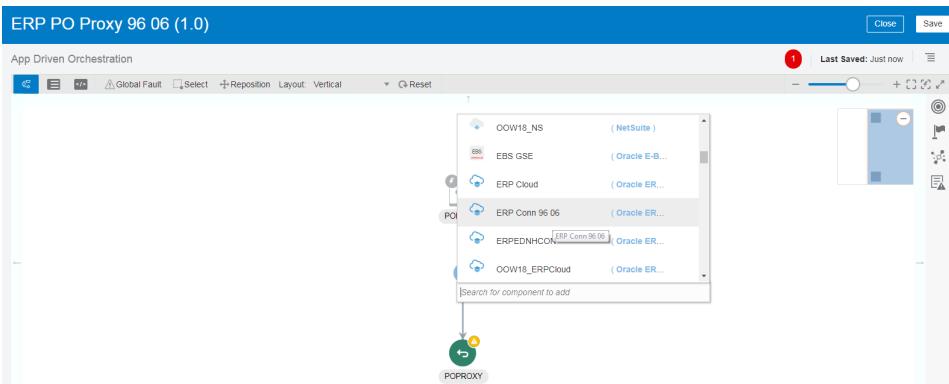
A Request/Response Flow is created. Delete the "Map to POPROXY" [Action](#)

Deleted: activity



13. Hover on the wiring next to POPROXY [Action](#) and Click on “+” sign and add the “ERP Conn 96 06” connection which is pre created

Deleted: activity



14. In the Basic info page provide endpoint name , endpoint description and Click Next

Oracle Product Management

Configure Oracle ERP Cloud Endpoint

Welcome to the Oracle ERP Cloud Endpoint Configuration Wizard
This wizard helps you configure an endpoint using the Oracle ERP Cloud connection. You will be asked to specify configuration parameters and define an operation for the service.

Basic Info	* What do you want to call your endpoint? changePO
Actions	What does this endpoint do? endpoint to update Purchase order
Operations	Describe the endpoint's purpose and detail
Response	
Summary	

15. In the Actions Page, Select the Radio Button “Query, Create, Update or Delete Information” to consume Purchase Order V2 Service

Configure Oracle ERP Cloud Endpoint

Welcome to the Oracle ERP Cloud Endpoint Configuration Wizard
This wizard helps you select one of the capabilities of Oracle ERP Cloud Adapter

Basic Info	Actions
Operations	What would you like to do with Oracle ERP Cloud Adapter?
Response	<input checked="" type="radio"/> Query, Create, Update or Delete Information Perform operations such as Find Catalog, Create Orders, Update Accounts, Process Expenses etc
Summary	<input type="radio"/> Import Bulk Data into Oracle ERP Cloud Perform FBDI-compliant bulk operations such as Import Asset Leases, Journal Entries, Bank Statements, Payable Invoices, Project Tasks, Sales Orders, Shipping Transactions etc. You can also configure event notifications and callbacks on these operations.
	<input type="radio"/> Send Files to ERP Cloud Upload files to Universal Content Management (UCM) in ERP Cloud. Note that once the files are uploaded, you will need to add a separate action in your integration flow to invoke the appropriate scheduled process or API in ERP Cloud to process the file. Use this option only when you cannot use the Import Bulk Data option above which automatically takes care of all this.

16. In the Operations Page Select Browse By -> Services and Search for Purchase Order.
Select PurchaseOrderService and changePurchaseOrder operation to consume in our flow.
Note: Select the correct PurchaseOrderService which has “acknowledgePurchaseOrder” in the list of operations

Oracle Product Management

Configure Oracle ERP Cloud Endpoint

Configure the Operations to Perform in the Target Oracle ERP Application
Select the business object or service and operation to use for the target integration.

Operations

Response Summary

Basic Info

Actions

Operations (selected)

Browse by: Services

Select a Service: Purchase (PurchaseOrderService selected)

Select the Operation to Perform on the Business Object/Resource or Service: changePurchaseOrder

Lifecycle: Active

Description:

Click Next

17. Review the Summary Page and Click Done

Configure Oracle ERP Cloud Endpoint

Oracle ERP Cloud Endpoint Configuration Summary
Oracle ERP Cloud endpoint configuration was successful.

Summary

Basic Info

Actions

Operations

Business Object: PurchaseOrderService

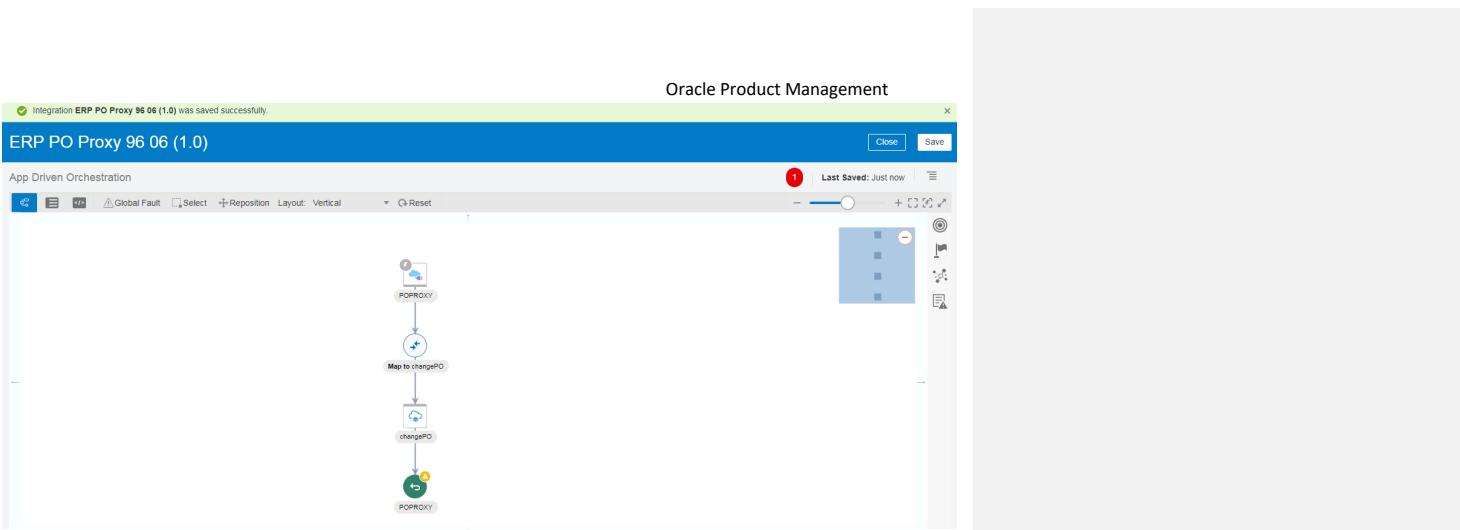
Operation: changePurchaseOrder

18. An invoke **Action** is configured with changePO operation and an empty Map (Map to changePO). **Action** is created

Deleted: activity

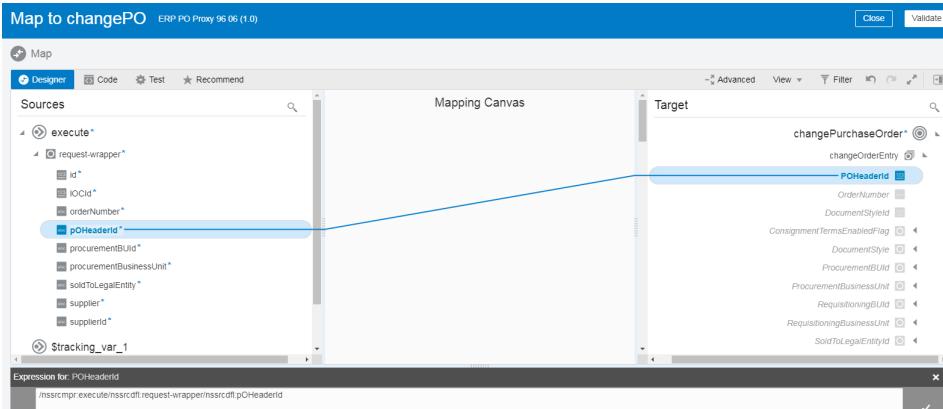
Deleted: activity

Integrating Your ERP with Oracle Integration



19. Edit the Map (Map to changePO) **Action** and provide below mapping

Deleted: activity



Select the element changeOrderEntry -> ChangeOrderDescription which opens up an expression window. Enter "Update of LOId"

Oracle Product Management

Map to changePO ERP PO Proxy 96.06 (1.0)

Map

Designer Code Test Recommend

Sources

- execute*
 - request-wrapper*
 - id*
 - IOCId*
 - orderNumber*
 - pOHeaderId*
 - procurementBuId*
 - procurementBusinessUnit*
 - soldToLegalEntity*
 - supplier*
 - supplierId*
- \$tracking_var_1

Mapping Canvas

Target Fields

- NoteToReceiver
- NoteToSupplier
- TaxationCountryCode
- TaxationCountry
- DocumentFiscalClassificationCode
- DocumentFiscalClassification
- InterfaceSourceCode
- ReferenceNumber
- ChangeOrderDescription **A**
- ChangeOrderInitiatingParty
- ChangeOrderInitiatorId
- ChangeOrderInitiatorEmail
- ChangeOrderInitiatorName
- FirstPartyTaxRegistrationId
- FirstPartyTaxRegistrationNumber

Expression for: ChangeOrderDescription

```
"Update of LLOC Id"
```

Expand "HeaderFlexField" element and map the following fields from Source to Target

Map \$Id -> \$cusotmerPO

Map to changePO

Map

Designer Code Test Recommend

Sources

- execute*
 - request-wrapper*
 - id*
 - IOCId*
 - orderNumber*
 - pOHeaderId*
 - procurementBuId*
 - procurementBusinessUnit*
 - soldToLegalEntity*
 - supplier*
 - supplierId*
- \$tracking_var_1

Mapping Canvas

Target Fields

- FirstPartyTaxRegistrationId
- FirstPartyTaxRegistrationNumber
- ThirdPartyTaxRegistrationId
- ThirdPartyTaxRegistrationNumber
- PurchaseOrderEntryLine
- HeaderFlexField
- PoHeaderId
- customerPo
- @nil
- warrantyExpirationDate
- locId
- ackFlag
- _FLEX_Context
- _FLEX_Context_DisplayValue

Expression for: customerPo

```
/nssrcmpr.execute/nssrcdfi.request-wrapper/nssrcdfi.id
```

Integrating Your ERP with Oracle Integration

Oracle Product Management

Map IOClId -> locId

Map to changePO ERP PO Proxy 96 06 (1.0)

Mapping Canvas

Sources

- execute*
 - request-wrapper*
 - id*
 - locId*
 - orderNumber*
 - pOHHeaderId*
 - procurementBusinessUnit*
 - procurementBusinessUnit*
 - soldToLegalEntity*
 - supplier*
 - supplierId*

Targets

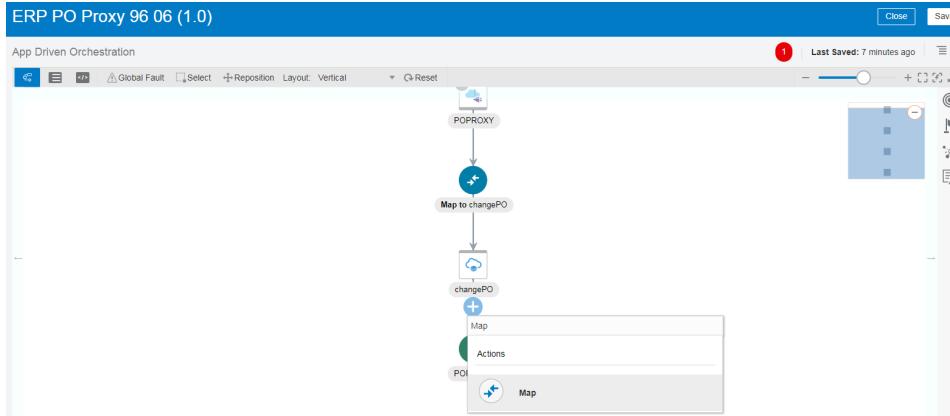
- ThirdPartyTaxRegistrationNumber
- PurchaseOrderEntryLine*
 - HeaderFlexfield
 - PoHeaderId
 - customerPo
 - @nlf
 - warrantyExpirationDate
 - locId*
 - ackFlag
 - _FLEX_Context
 - _FLEX_Context_DisplayValue
 - _FLEX_NumOfSegments

Expression for: locId

```
/nssrcmr:execute/nssrcdf:request-wrapper/nssrcdf:IOClId
```

Validate and Save your integration

20. Hover on the wiring next to the changePO invoke **Action** and Click + sign to add a Map **Action**

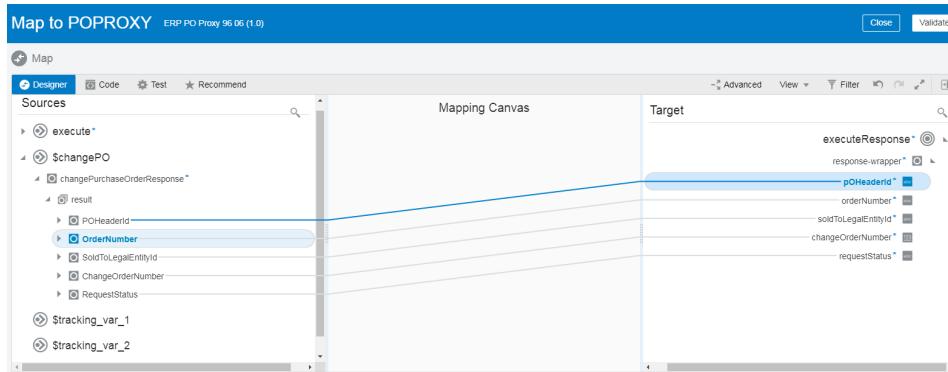


Integrating Your ERP with Oracle Integration

Oracle Product Management

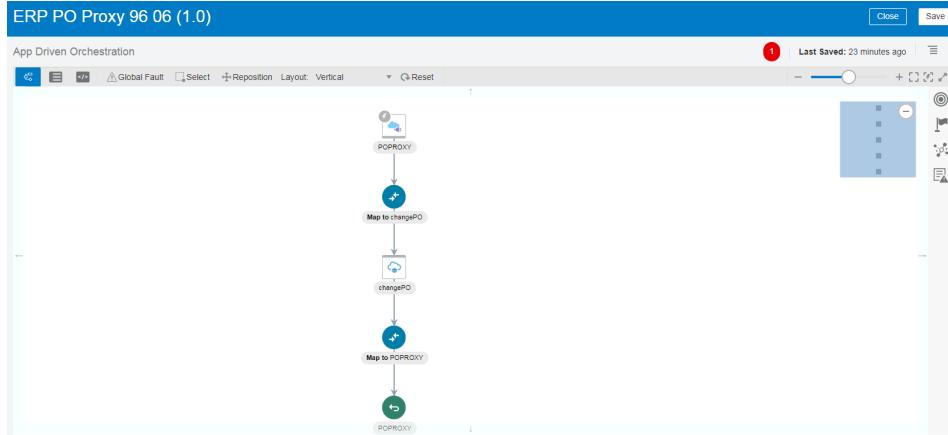
21. Edit the "Map to POPROXY" **Action** and perform the mapping as per below

```
changePurchaseOrderResponse -> result->POHeaderId TO response-wrapper -> poHeaderId
changePurchaseOrderResponse -> result->OrderNumber TO response-wrapper -> orderNumber
changePurchaseOrderResponse -> result->SoldtoLegalEntityId TO response-wrapper -> soldToLegalEntityId
changePurchaseOrderResponse -> result->ChangeOrderNumber TO response-wrapper -> changeOrderNumber
changePurchaseOrderResponse -> result->RequestStatus TO response-wrapper -> requestStatus
```



Click on Validate and Close

22. Your Final integration flow...



23. Click on Top right Corner and select Tracking. Add the below Business Identifiers for Tracking your instance

Integrating Your ERP with Oracle Integration

Oracle Product Management

Business Identifiers For Tracking

Source

Business identifiers enable runtime tracking on messages. Specify up to three tracking fields. A primary identifier is required. It enables you to track fields across integration flows and is always available.

Additional business identifier fields are optional. At runtime, they are available for tracking only when this integration flow is selected.

Primary	Tracking Field	Tracking Name	Tracking Variable	Help Text	
<input checked="" type="checkbox"/>	orderNumber	order Number	tracking_var_1	How to track it?	<input type="button" value="Edit"/>
	id	id	tracking_var_2	How to track it?	<input type="button" value="Edit"/>
	IOCId	IOC Id	tracking_var_3	How to track it?	<input type="button" value="Edit"/>

Click on Save.

Activate Integration (Flow2)

- On the Integrations page, click on the “ERP PO Proxy <ClassId> <StudentId>” flow using the slider button and Activate the Integration

Activate Integration

ERP PO Proxy 96 06 (1.0)

Publish: This integration can be published to API Platform CS
To publish it now, click ‘Activate and Publish...’. You can also publish it later.

Oracle Recommends

Contribute integration mappings to Oracle Recommends.

Important: Oracle Integration Cloud leverages the collective intelligence to recommend which fields should be mapped while developing an integration. These recommendations are built based on the mappings contributed to Oracle Recommends anonymously. Unselect the checkbox if you do not wish to contribute to Oracle Recommends. You may change this in recommendations page from settings menu.

Learn More

Oracle Assister: When Assister recording is enabled, payloads will be captured and integration instances will be recorded. Recordings can be played later and maximum five recordings will be maintained for an integration.

Enable Assister Recording

Tracing: When tracing is enabled, integration activity can be viewed in the Activity Stream.

Enable tracing

Include payload

Warning: When payload is included, sensitive information from the payload is written into log files, which can be downloaded and viewed. This may pose a security risk, and also slow down your system. Not recommended in a production environment.

Learn More

Integrating Your ERP with Oracle Integration

Oracle Product Management

2. Click on How to run next to the Activation bar

Open the metadata url generated in a browser window.

This metadata url provides all the description about your REST Endpoint

Endpoint Description

Endpoint URL

https://OICPM/DemoUMic-oicpm.uscom-central-1.oraclecloud.com:443/ic/api/integration/v1/flows/rest/ERP_PO_PROXY_96_06/1.0/PO_PROXY

Swagger

https://OICPM/DemoUMic-oicpm.uscom-central-1.oraclecloud.com:443/ic/api/integration/v1/flows/rest/ERP_PO_PROXY_96_06/1.0/metadata/swagger

How to Run

http://www.oracle.com/pls/topic/lookup?cxe=oci_en&id=ICSU/G-GUID-205B916C-1075-4693-A9E2-72A6C8C4AB3C

Resource /PO_PROXY

Method POST

Request

Request Media Type

- application/json

Request sample

```
{ "id": 24, "IOCID": 3, "orderNumber": "163521", "pOHeaderId": "300000074157561", "procurementBUId": "300000046987012", "procurementBusinessUnit": "US1 Business Unit", "soldToLegalEntity": "US1 Legal Entity", "supplier": "Deli", "supplierId": "300000047414679" }
```

Response

Response Media Type

- application/json

Response sample

```
{ "pOHeaderId": "300000074157561", "orderNumber": "162180", "soldToLegalEntityId": "300000074157561", "changeOrderNumber": 3, "requestStatus": "SUCCESS" }
```

3. Copy the Swagger url from the Endpoint description. We will use the swagger definition in next section to create a service connection in VBCS Web application

Invoke ERP Cloud Service from VBCS Web App

1. Select the Visual Builder tab, from the list of applications open the **LetterOfCreditPortal<ClassId><StudentId>** **Web application**
2. On the left hand side select Service Connections tab

Integrating Your ERP with Oracle Integration

Oracle Product Management

The screenshot shows the Oracle Visual Builder interface. On the left, there's a sidebar with a red box highlighting the 'Service Connection' icon. The main area displays a form titled 'editpage' with several input fields: 'LOC Id', 'POHeaderId', 'OrderNumber', 'ProcurementBUId', 'ProcurementBusinessUnit', 'SoldToLegalEntity', and 'Supplier'. A message at the top says 'ERROR Could not load data: status 404'. On the right, there's a 'Page' panel with tabs for 'General' and 'All', and a 'Preferred Layout' section with 'Grid' and 'Flex' options.

- Click on the “+ Service Connection” to create a new Service Connection to invoke on a button click
- In the “Create Service Connection” page select “Define by Specification”

Create Service Connection

The 'Create Service Connection' dialog has three options: 'Select from Catalog' (green), 'Define by Specification' (orange, highlighted with a red box), and 'Define by Endpoint' (purple). The 'Define by Specification' section contains the text: "You can provide service specification document that describes the service." Below the dialog is a 'Cancel' button.

- Provide the highlighted information as per the screenshot and Click Next

Create Service Connection

The 'Create Service Connection' dialog is shown again, this time with specific fields highlighted with red arrows and boxes:

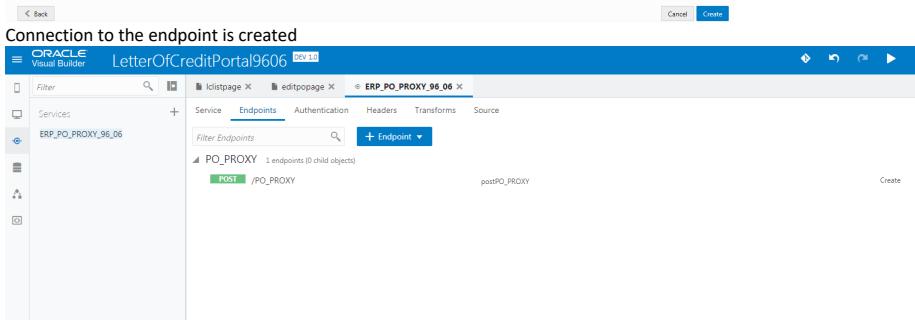
- API Type:** Swagger (highlighted with a red arrow)
- Service Specification:** Web Address (highlighted with a red arrow)
- Document:** URL: https://OICPMDemoMicr-oracleuscom-central-1.oraclecloud.com:443/c/api/integration/v1/news/rent/ERP_PO_PROXY (highlighted with a red arrow)
- Warning:** A note about using AppID authentication (highlighted with a red arrow)
- Username:** kishore.katta@oracle.com (highlighted with a red box)
- Password:** (highlighted with a red box)

Below the form are 'Cancel' and 'Next >' buttons.

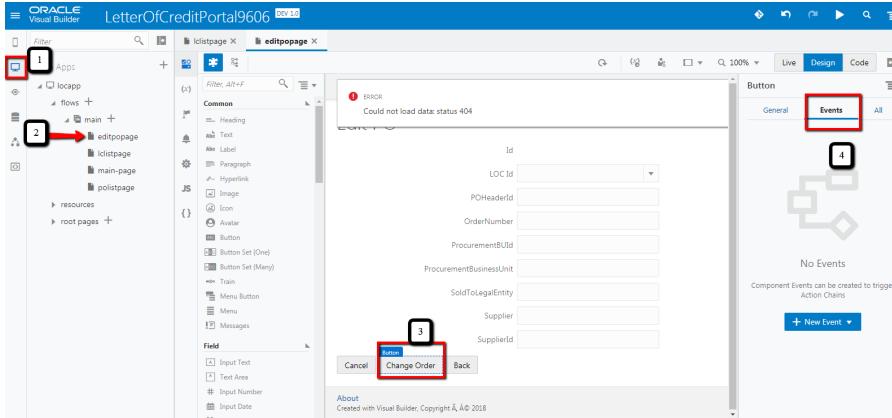
Integrating Your ERP with Oracle Integration

Oracle Product Management

6. In the Select Endpoints page Select the “PO_PROXY” endpoint and click on Create



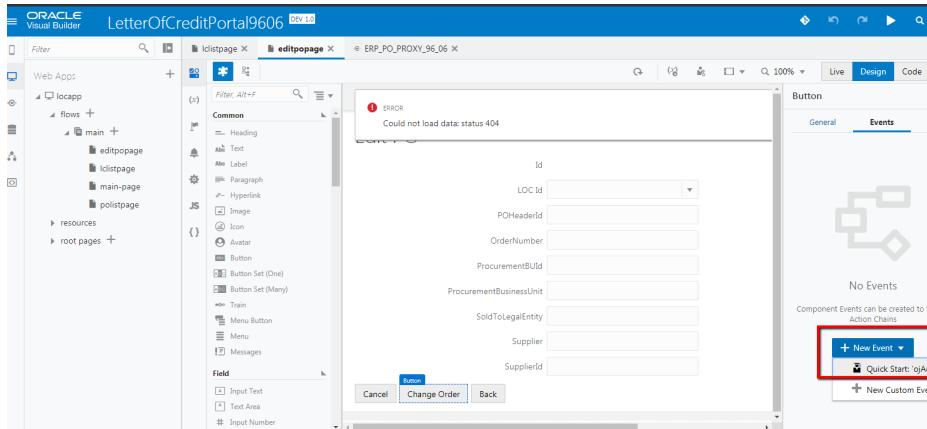
7. (1) Click on Web application tab and (2) select the “editpage” by expanding the localapp->flows->main. (3) Select the “Change Order” button on the web page. (4) On the right handside select the Events tab



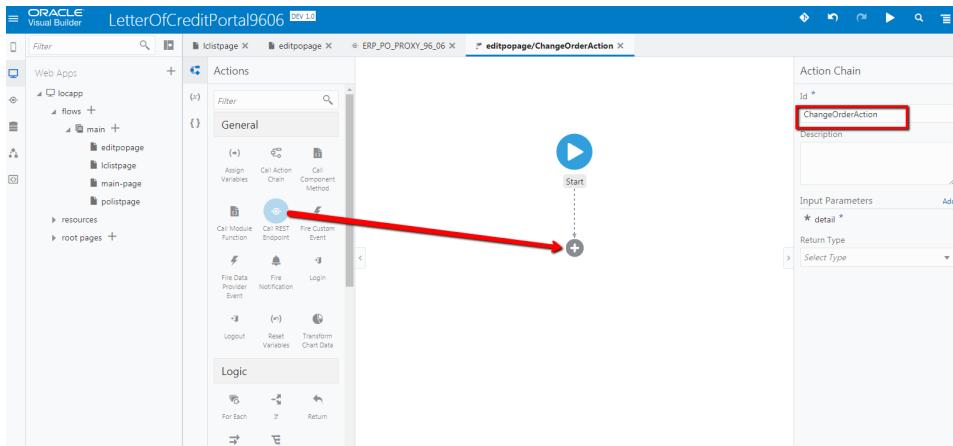
Integrating Your ERP with Oracle Integration

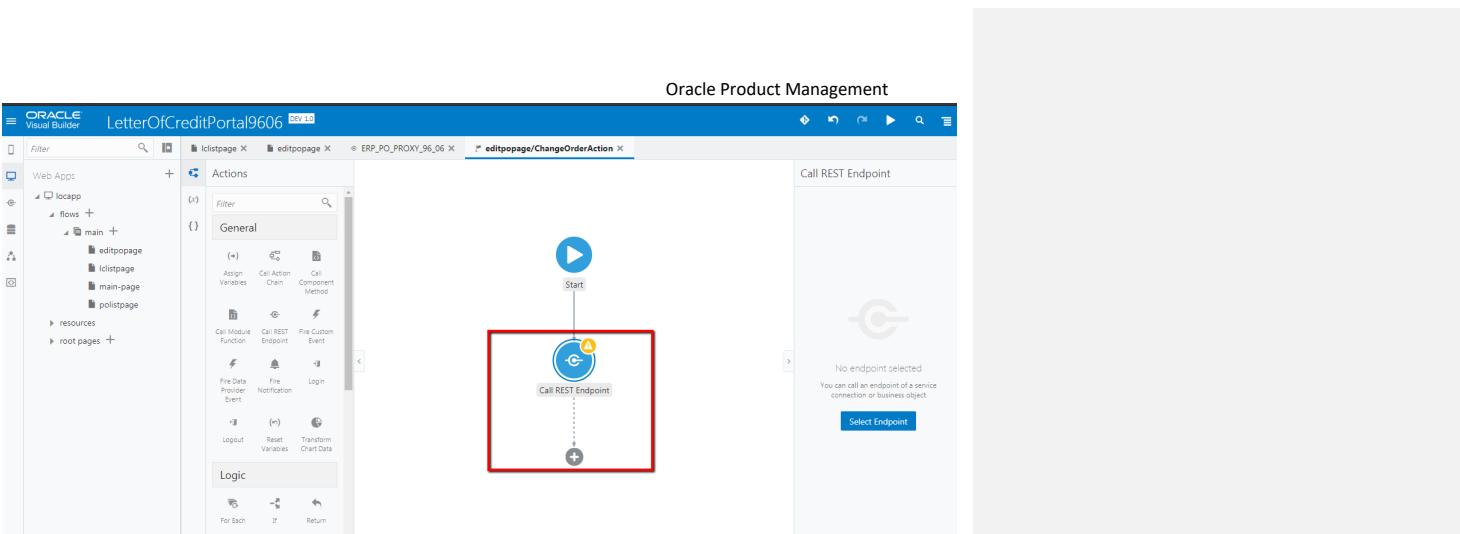
Oracle Product Management

8. Click on New Event and select "Quick Start: ojAction" to create a new Action Chain

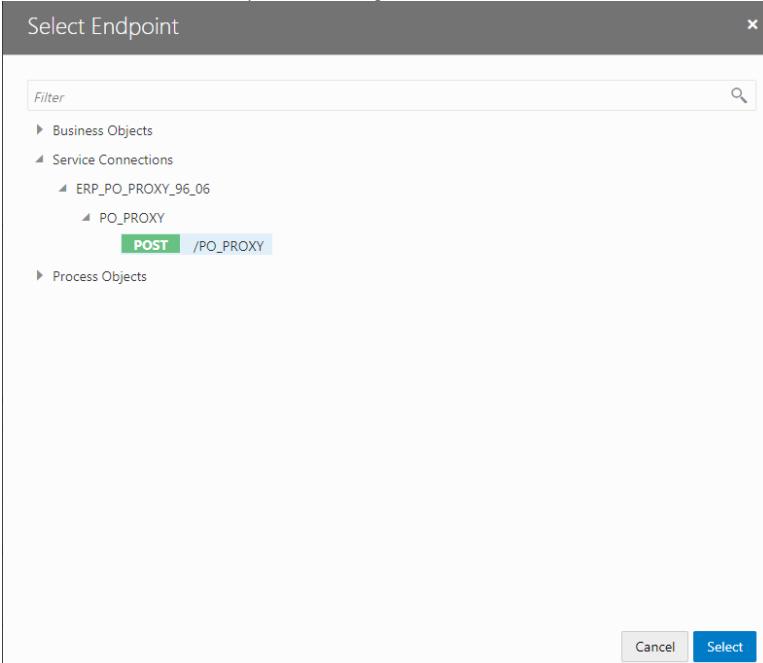


9. Provide Id as "ChangeOrderAction". Drag and drop "Call REST Endpoint" action from Actions palette onto to the "+ Sign"





10. Click on "Select Endpoint" and Configure the Service Connection created earlier.



Click on Select. The endpoint is now configured to be invoked from the action chain.

Integrating Your ERP with Oracle Integration

Oracle Product Management

11. Select "Parameters" -> body which opens a mapper interface page

Call REST Endpoint: callRestEndpoint1

Sources

- Action Chain
- Results
- Page
 - IOCListSDP
 - pOld
 - { } poRecord**
 - A poRecordETag
- Flow
- System
- Application

Target

- Parameters
 - { } body**
 - A filePath
 - { } requestTransformOptions

Expression for: body

\$page.variables.poRecord

Cancel Save

12. We want to Map the "editpopage" page variables to the endpoint interface.

Map \$poRecord(Sources) TO body (Target)

Call REST Endpoint: callRestEndpoint1

Sources

- Action Chain
- Results
- Page
 - IOCListSDP
 - pOld
 - { } poRecord**
 - A poRecordETag
- Flow
- System
- Application

Target

- Parameters
 - { } body**
 - A filePath
 - { } requestTransformOptions

Expression for: body

\$page.variables.poRecord

Cancel Save

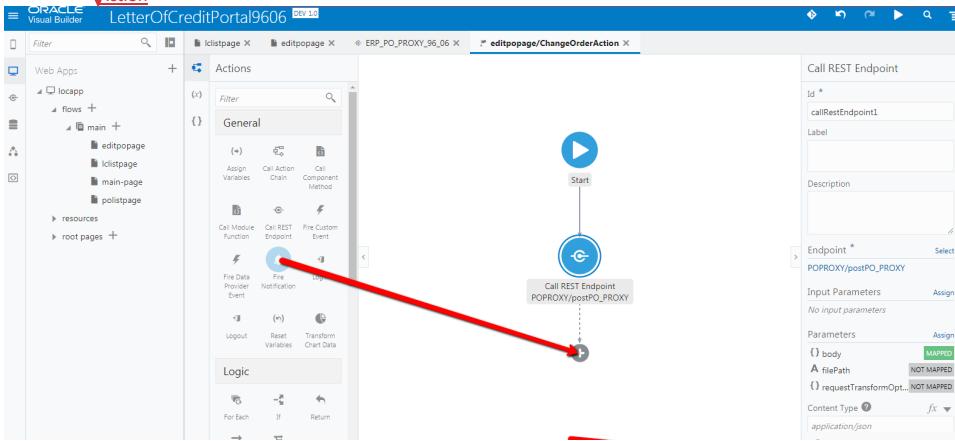
An expression is generated in the expression window based on the mapping. poRecord is a page variable which holds the data from the "editpopage". Click on Save. You should see the body parameter now marked as "**MAPPED**"

Oracle Product Management

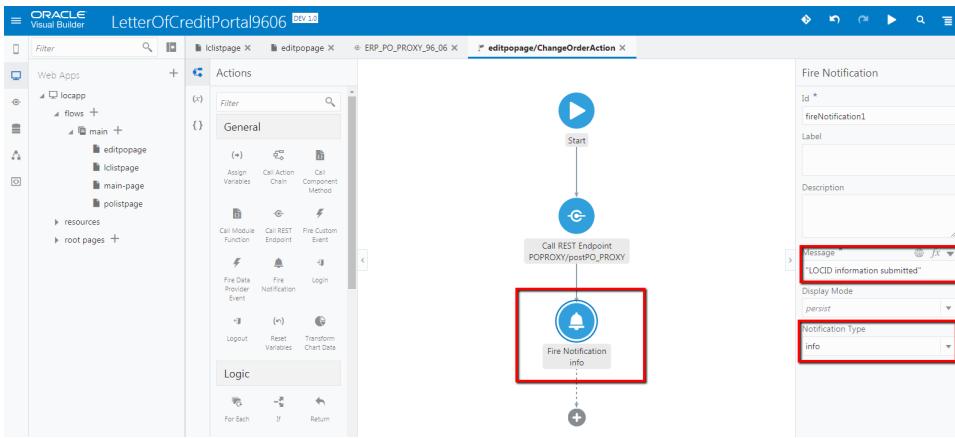
13. From the Action palette Select “Fire Notification” action on to the “+” sign next to the “Call Rest Endpoint”

Action

Deleted: activity



14. Change the Notification type -> info and provide a Message in the text area



Running the VBCS Web App

1. Click on Run

The screenshot shows the Oracle Visual Builder interface with the title 'LetterOfCreditPortal9606'. On the left, there's a tree view of 'Web Apps' containing 'locapp', 'flows', and 'resources'. The main area shows an 'Actions' section with a 'General' filter. A central diagram shows a 'Start' node connected to a 'Call REST Endpoint' node labeled 'POPROXY/postPO_PROXY'. To the right, the 'Action Chain' configuration is displayed with fields for 'Id' (set to 'ChangeOrderAction'), 'Description', and 'Input Parameters' (with a note to add 'detail'). Below these are sections for 'Return Type' and 'Select Type'.

2. The Web application opens up in a separate browser window. We have given a basic web app for you to test the end to end flow

The screenshot shows the 'LC Portal' web application. At the top, there are buttons for 'LC List Page' and 'PO List Page'. The main content area displays a table titled 'LC List Page' with columns: LOCId, LOCAmount, LOCBank, LOCExpiry, LOCOpeningDate, LOCStatus, and LOCType. The table contains 6 rows of data. At the bottom left is a 'Back' button.

3. Click on LC List Page which displays all the Letter of Credits Available in a Custom table. Go back to the main page

The screenshot shows the 'LC Portal' web application. At the top, there are buttons for 'LC List Page' and 'PO List Page'. The main content area displays a table titled 'LC List Page' with columns: LOCId, LOCAmount, LOCBank, LOCExpiry, LOCOpeningDate, LOCStatus, and LOCType. The table contains 6 rows of data. At the bottom left is a 'Back' button.

4. Click on PO List Page . All the PO records that was created earlier in ERP Cloud was synced into VBCS

The screenshot shows the 'LC Portal' web application. At the top, there are buttons for 'Edit PO' and 'Back'. The main content area displays a table titled 'PO List Page' with columns: POHeaderId, OrderNumber, Supplier, and LOCId. The table contains 4 rows of data. At the bottom left is a 'Back' button.

Integrating Your ERP with Oracle Integration

Oracle Product Management

5. Select PO that you created and Click on "Edit PO"

LC Portal

Edit PO Back

POHeaderId	300000176127931
OrderNumber	163531
Supplier	Dell Inc.
LOCId	

6. In the "Edit PO" page provide "LOCId" information. Leave the rest of the parameters intact

LC Portal kishore.x.katta@oracle.com

Edit PO

Id: 63

LOC Id: 4

POHeaderId: 300000176127931

OrderNumber: 163531

ProcurementBuild: 300000046987012

ProcurementBusinessUnit: US1 Business Unit

SoldToLegalEntity: US1 Legal Entity

Supplier: Dell Inc.

SupplierId: 300000047414679

Cancel Change Order Back

7. Click on "Change Order" button. Which invokes your "ERP PO Proxy <ClassId> <StudentId>" Integration flow

8. You should see an instance is created. Go to Integrations -> Monitoring -> Tracking

Monitoring ORACLE Integration Cloud

Dashboards Integrations Agents Tracking Runs Errors

Track Instances

Last 1 Hour

order Number: 163531 Instance ID: 801794

ERP PO Proxy 96 06 | 1.0

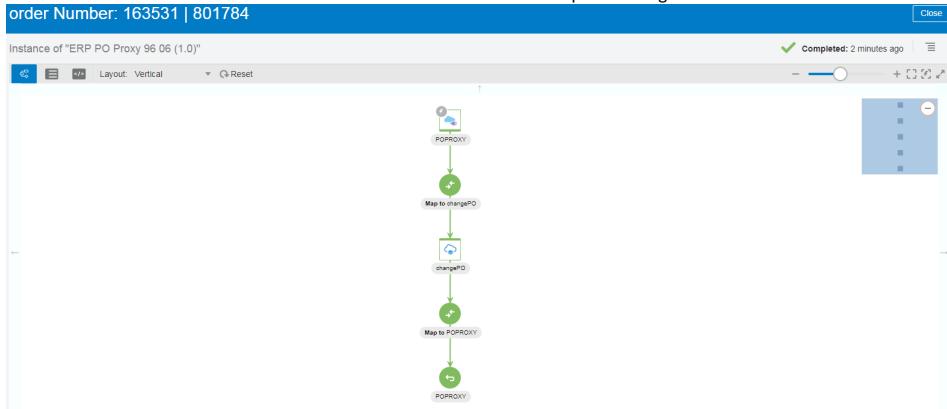
Completed

ID: 63 LOC Id: 4

Started: just now
Completed: just now
Duration: 33 sec.

Oracle Product Management

9. Select the Order Number and it confirm that the flow is completed and green



10. Also, observe a notification created in the "Edit PO Page". Confirming the payload is submitted to the Proxy Integration flow

INFORMATION
"LOCID information submitted"

Loc Id	4
POHeaderId	300000176127931
OrderNumber	163531
ProcurementBuild	300000046987012
ProcurementBusinessUnit	US1 Business Unit
SoldToLegalEntity	US1 Legal Entity
Supplier	Dell Inc.
SupplierId	300000047414679

Cancel Change Order Back

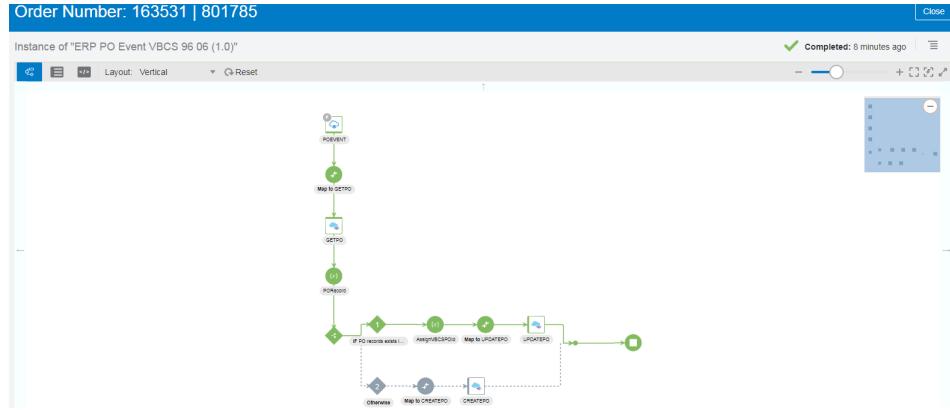
11. In the Integrations -> Monitoring -> Tracking page, you can observe another instance got created. As, LOCId is got updated in ERP Cloud Flow 1 is triggered again.

Note: Purchase Order Event is raised both for Create and Update records

Flow	Order Number	Instance ID	PO Header Id	Item Description	Started	Completed	Duration
Flow1	163531	801795	300000176127931	Lan Cable	4 minutes ago	3 minutes ago	33 sec
Flow2	163531	801794	63	4	4 minutes ago	3 minutes ago	33 sec

Oracle Product Management

Open the Instance and we see that "If" path is evaluated to Update the PO into VBCS

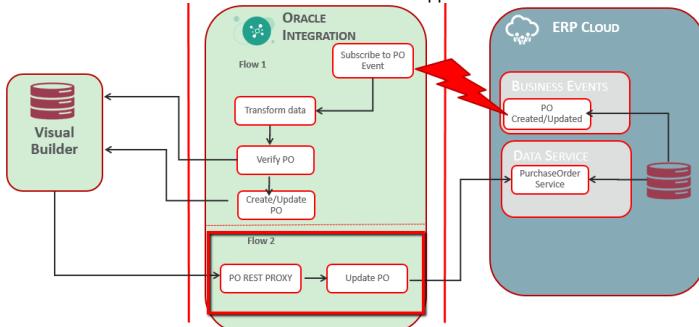


12. Now go back to the PO List page. It should now show the "LOCId" updated.

LC Portal

POHeaderId	300000176127931
OrderNumber	163531
Supplier	Dell Inc.
LOCId	4

Congratulations, you have now completed Flow 2 and an end-to-end Flow to capture PO Events and update with cross reference of Letter of Credit Identifier from VBCS Web app.



Integrating Your ERP with Oracle Integration